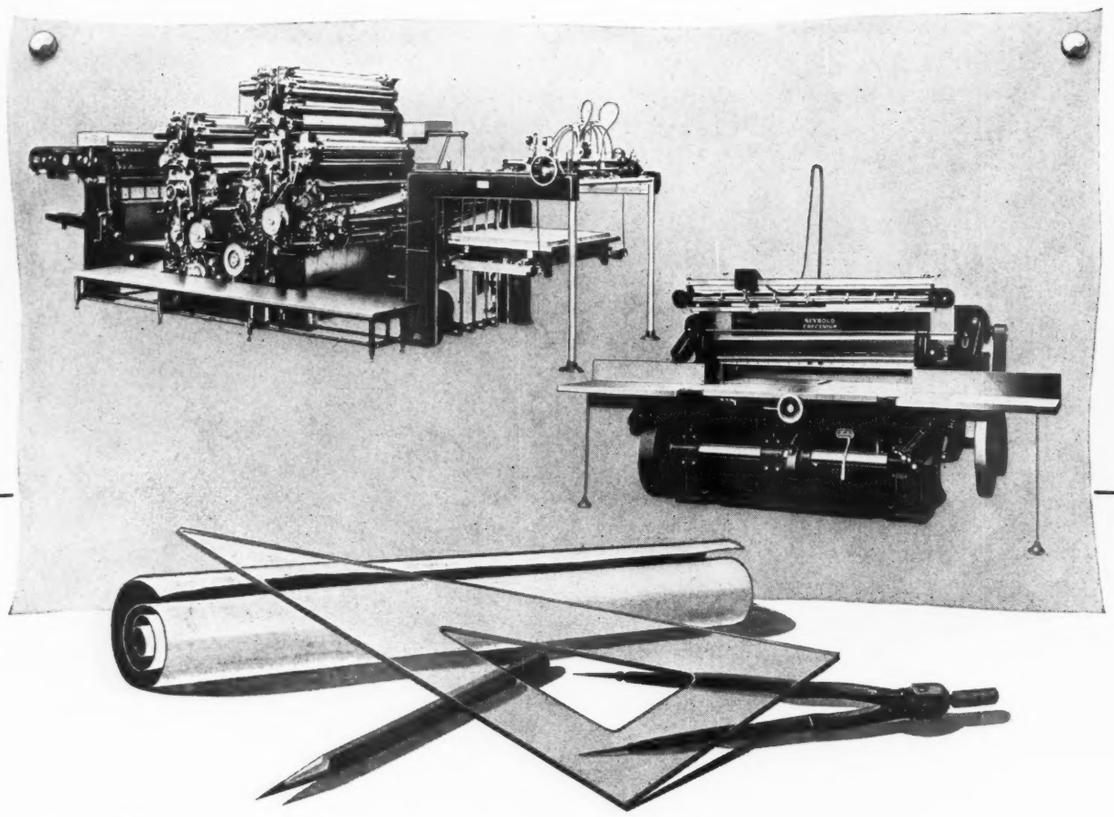
PRINTING EQUIPMENT *Engineer*

A Technical Publication for the Mechanical Executive Responsible for Printing Production, Equipment and Supplies in the Commercial, Magazine, Private Plant and Daily Newspaper Field.

OCTOBER, 1942

ENGINEERED BY THE SAME CODE OF

Precision Craftsmanship



The greatest advancement in the mechanics surrounding the printed word has taken place during the past twenty-five years. During this time our Engineering organization has established a continuous record of improvement, attaining finally in the production of both printing press and bindery equipment that realization of *precision* which is the highest honor in craftsmanship and the greatest merit in performance. One code of constructive engineering thought governs all HARRIS-SEYBOLD-POTTER COMPANY products. Right now our entire production facilities are engaged in war work. But after victory we shall return stronger than ever to pick up the suspended task of regular service to the printers of America and of the world.

HARRIS • SEYBOLD • POTTER • COMPANY

HARRIS DIVISION

CLEVELAND, OHIO

MANUFACTURERS OF OFFSET LITHOGRAPHIC • LETTERPRESS AND GRAVURE PRINTING MACHINERY • • • • • •

SEYBOLD DIVISION

DAYTON, OHIO

MANUFACTURERS OF PAPER CUTTERS AND TRIMMERS • KNIFE GRINDERS • DIE PRESSES • WRIGHT DRILLS • MORRISON STITCHERS

Awarded

September 11, 1942

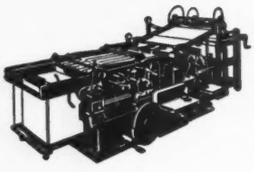
SOME REASONS WHY

1. *All contracts completed ahead of schedule.*
2. *Eighteen months of manufacture and not one unit rejected.*
3. *Production now 500% higher than fifteen months ago.*
4. *Plant operates 100% on war work, twenty-four hours per day, seven days per week.*
5. *Employees work eight hours per day, seven days per week, one "relief" day every five weeks.*
6. *Price of product as much as 33⅓% lower than other manufacturers.*

Miller Printing Machinery Co.

Pittsburgh, Pennsylvania

21 to 22% of employee payroll goes to the purchase of U. S. War Savings Bonds and Income Tax Certificates.



Miller "return parts policy" established January 1, 1942, assures equitable distribution of replacement parts and maintenance of all Miller machines as long as humanly possible.

Hundreds upon hundreds of tons of scrap metal have been contributed by the printing industry under the Miller Plan since the beginning of this year—to the advantage of the war effort, the industry and the individual printer.

Miller Printing Machinery Co.
Pittsburgh, Pennsylvania

• *Built by*
STOKES & SMITH CO.

Seal 'em TIGHT
with SKF BEARINGS

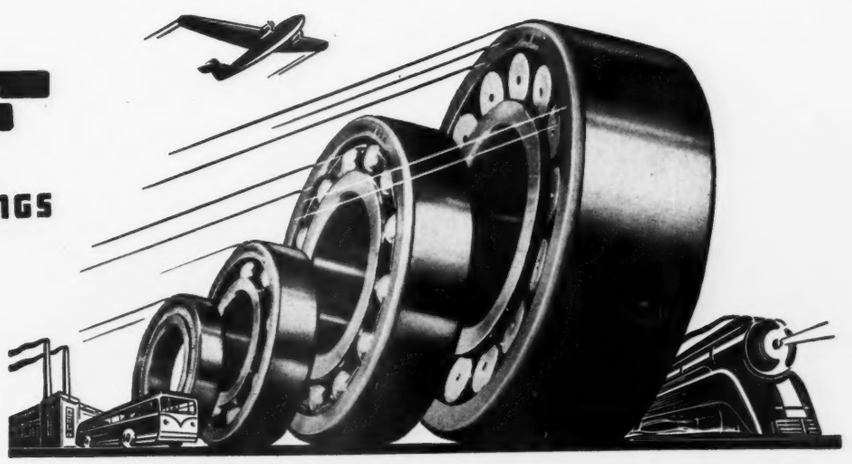
Many things happen to cartons when they pass through this S & S Neverstop Carton Filling and Sealing Machine. They're glued, folded and bottom sealed . . . conveyed to the filling unit where they're completely filled and their tops glued, folded, and sealed. And while all this is going on, SKF's take thrust loads on vital locations . . . assure the same reliability that you find in SKF's on other machines that are winning the War of Production.

5135

SKF INDUSTRIES, INC., PHILA., PA.

SKF

BALL & ROLLER BEARINGS



Conservation Order M-99

Explained by Printing and Publishing Branch of WPB—Many questions answered regarding disposal of obsolete plates

UNDER date of September 22, the Printing and Publishing Branch of the War Production Board issued an explanation of Conservation Order M-99 which provides for the disposal of obsolete plates in the printing and publishing industry. Many questions which might occur to printing executives have been asked and are answered in the explanation. Questions related to when, where and to whom obsolete plates may be disposed of are answered clearly.

The text of the explanation is as follows:

EXPLANATION OF CONSERVATION ORDER M-99

1. I am the publisher of a periodical which carries advertising. The advertisers own many of their own cuts and these are repeated frequently in their advertising. What must I do to be in compliance with Order M-99?

You must notify each advertiser of the cuts which you are holding for him.

2. What must the owners of these cuts do to be in compliance with Order M-99?

They must dispose of all cuts before October 1, 1942 which do not have an assured future use and have not been used within the period specified in the order; otherwise they may not acquire any new cuts or have you use any new cuts for them.

3. There are several thousand owners of these advertising cuts. Is it necessary for the printer of the magazine in which they appear to notify all of them?

Yes.

4. Will the War Production Board authorize us to scrap those "obsolete plates" concerning which we receive no answer from the owner?

No. If you are a custodian of an obsolete plate, you are merely required to report to the owner that you have such plates in your possession, identifying them by title or subject matter, so that he will be in a position to take the appropriate action as the owner of the plate. If you are the owner of plates which are subject to the contractual rights of another to purchase or otherwise acquire them, then you are required to notify such other person of the contractual right and identify the plates. If the owner in such case fails to authorize you to dispose of the plates on or before September 30, 1942, you are required to report to the War Production Board such fact and identify the plates by title or subject matter and give the name and address of the person having the contractual right pertaining to them, together with an estimate of the aggregate amount of each restricted metal in the plates. This will enable the government to determine whether it should take the plates by requisition proceedings.

5. What scrap dealers, secondary smelters or refiners are authorized to purchase plates?

This depends on the provisions of the "M" Order pertaining to the metal involved. The Orders generally permit sale to any person regularly engaged in the buying and selling of scrap. In the case of secondary smelters and refiners, the provisions of the Orders vary. (See also answer to Question 13.)

6. We are the publishers of a house organ. Is this classed as a magazine?

Yes.

7. We have obsolete electrotypes to dispose of. May we sell them only to one of the three firms listed in the press release accompanying Order M-99?

No. You may sell your electrotypes to any established scrap metal dealer or to any smelter or refiner authorized by the War Production Board to receive same.

8. Why were the three firms listed in the press release as receivers of electrotypes?

A heavy temporary influx of electrotypes on the scrap metal market might result in the inability of owners of such plates to dispose of them. The three firms mentioned in the press release have agreed to pay not less than 1¼ cent per pound under the current price of New York common grade lead for all electrotypes flowing from the Printing and Publishing Industry. The Metals Reserve Company though its agent, the National Lead Company, has agreed to purchase the backing metal from the electrotypes, in pig form, purchased by these three companies and any other dealers who will participate on the same basis.

9. Must I report my sale of obsolete plates to the War Production Board?

Not until you are called upon to do so. Your records should be kept in such shape as to make a report if required by the Director General for Operations.

10. I am a metal refiner. How may I be placed in a position to receive obsolete electrotypes from the Printing and Publishing Industry?

Communicate your wishes to the National Lead Company, agent for Metals Reserve Company. All metal houses who purchase electrotypes from the Printing and Publishing Industry at prescribed prices and deliver the backing metal in pig form in minimum carload lots may participate in the program.

11. Will brass stamping dies be affected by the terms of Order M-99?

Yes, although the reverse side of such dies may be used for cutting new dies and when this is done it is unnecessary to scrap the whole die.

12. Certain companies make a practice of collecting from newspaper and magazine publishers, obsolete plates belonging to advertisers. Is this practice in conformity with Order M-99?

Yes, provided the collecting company is one regularly engaged in the business of buying and selling scrap and that the obsolete plates are collected before the first day of each calendar quarter.

13. How may I tell whether or not a person is authorized to receive and process scrap metal?

If you are in doubt as to whether or not a person is authorized to receive and process scrap metal, you may request of such person that he state in writing that he is so authorized under the appropriate "M" Order or Orders of the War Production Board.

(Continued on Page 40)

COLOR
RESEARCH
GUESSING CAN BE EXPENSIVE
There is no need to guess the solution of your next color problem as our Color Research Laboratory has compiled the information you need. Send today for your copy of the booklets listed below:
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—Its Normal Demands and Wartime Limitations
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BALTIMORE CAMBRIDGE

Send your tons of scrap iron and steel to fight for freedom. Use the . . .
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WARTIME SCRAP ALLOWANCE PLAN
FOR FULL DETAILS, WRITE
MILLER PRINTING MACHINERY CO.
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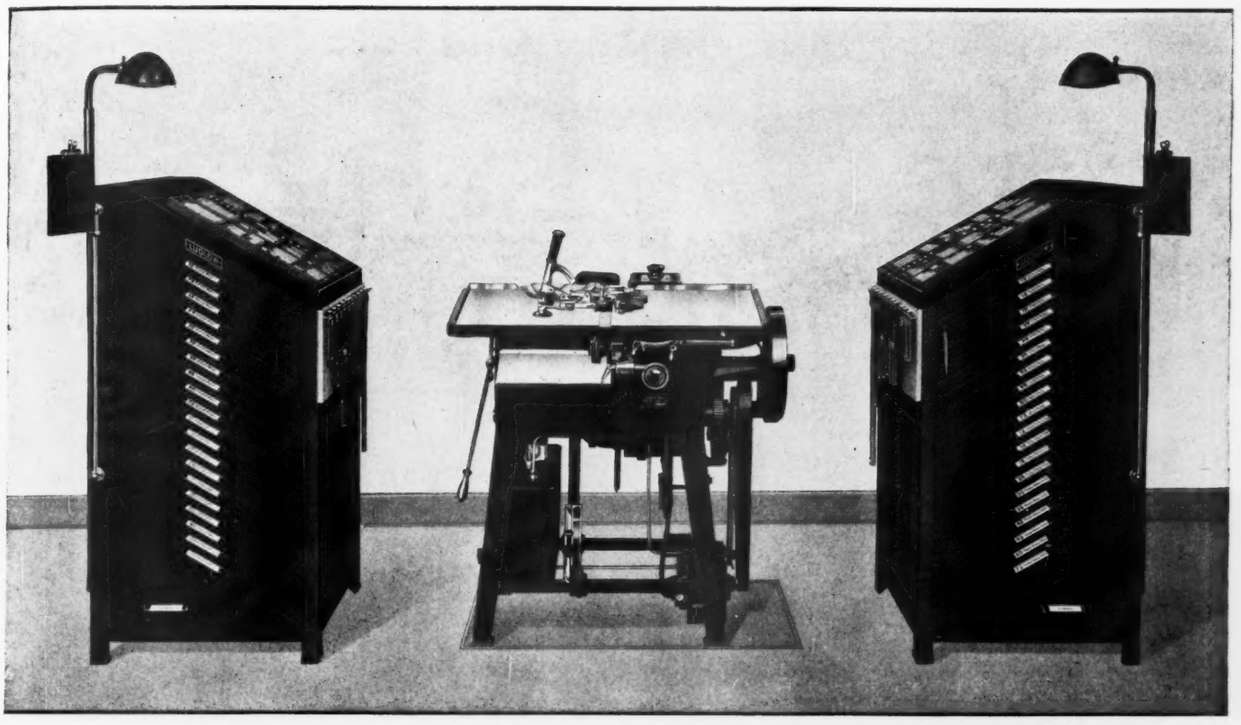


Ludlow Dependability and Efficiency Have a New Meaning Today!

These are times when Ludlow dependability and efficiency of operation mean much more than ever before.

■ Users know from experience that their Ludlow machines should keep on producing slug-cast job and display composition almost indefinitely. This requires little mechanical care, although it is now of vital importance that that little be given—regularly. Maintaining Ludlow equipment always in tip-top mechanical condition is the best safeguard of efficient future production.

■ Simplicity of mechanism, which largely accounts for the Ludlow's remarkable dependability and comparative freedom from mechanical trouble, is not an accidental characteristic. It is one that has been always in mind in designing Ludlow equipment.

■ So simple in operation is the Ludlow system that any competent compositor can quickly learn to produce composition rapidly and efficiently the Ludlow way without extended training. Inherent short-cuts and simplified practice make for top efficiency under all circumstances.

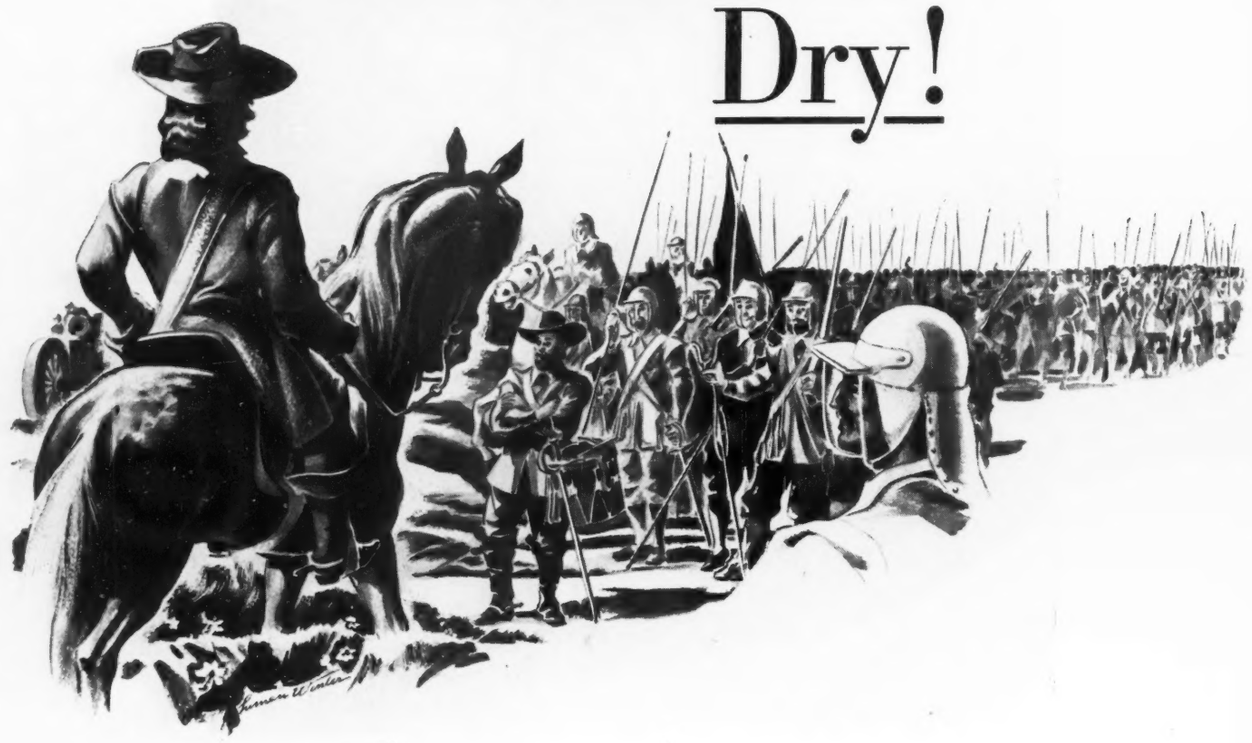
■ Ludlow's dependability and efficiency of operation are of special value to printers during these days of restrictions and limitations.

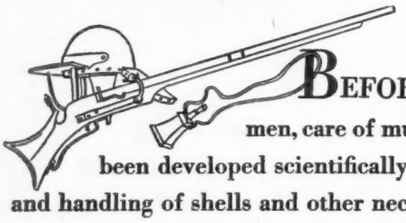
Set in Ludlow Karnak Black Condensed Italic & Karnak Intermediate

Ludlow Typograph Company 2032 Clybourn Avenue Chicago + + Illinois

Put Your Trust in God . . . .

but Keep Your Powder Dry!





BEFORE and since Oliver Cromwell gave this famous advice to his men, care of munitions has been the concern of all fighting men. Paper has been developed scientifically to resist moisture and other threats, and today the packing and handling of shells and other necessities of war has attained a degree of protection never before known. Champion is producing essential war materials . . . pulp for explosives, waterproof wrappings for shells, food containers, blackout and war map paper, and paper substitutes for certain critical materials. Whenever you think of good printing paper, whenever you must have a new paper product created for some special purpose, it will pay you to come to Champion.

Scrap your Scrap

★

THE CHAMPION PAPER AND FIBRE CO., Hamilton, Ohio

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . .. HOUSTON, TEXAS

Manufacturers of Advertisers' and Publishers' Coated and Uncoated Papers, Cardboards, Bonds, Envelope and Tablet Writing . . . 2,000,000 Pounds a Day

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- **HANDBOOK FOR PRESSMEN — By Fred W. Hoch.** Book written by authority on all phases of flat-bed letterpress production for the practical pressman. Contains 248 pages, 26 illustrations and 24 charts, $3 per copy, cash with order.

• Send All Orders With Remittance to

PRINTING EQUIPMENT Engineer

1276 W. Third Street
Cleveland, Ohio

Printing Equipment Engineer

Leading Articles, October 1942

Conservation Order M-99 Explained 2

Graphic Arts Victory Campaigns Plan 9
MacD. SINCLAIR

Multiple News Transmission for Newspapers Now Accomplished Fact 11
ALEX H. WASHBURN

Production Awards Received by Several Firms 14

Separating Block for Cuts 16
ALEX ALBERG

Substantial Southern Commercial Plant 17

Line-Composing Machine Assembler Adjustments 19
QUIDO E. HERMAN

Illinois Mechanical Conference 20

Accurate Dross Records Facilitated 21
R. M. O'CONNOR

Precision Lighting for Printing 24
ROBERT G. CLARK

Recent WPB Rulings 28

Printing Patents Report 31

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MEMBER CONTROLLED CCA CIRCULATION AUDIT

WHAT'S HAPPENED TO THE PRESS *You Planned to Buy this Year?*

The V-shaped design, shown here, is an actual reproduction of the "Victory Label" which Goss is attaching to all the war goods it builds. The idea for this sticker was conceived by a precision grinder operator in the Goss plant, and he was awarded a war bond prize for his suggestion.

FOR VICTORY
BUY UNITED STATES SAVINGS BONDS AND STAMPS

The press you were going to buy in 1942 or '43 is—like everything else made of essential materials—now pounding the Pacific, rumbling across the deserts of Africa, or bombarding the foe in Europe.

Here at Goss, the men, materials, and machines that would have built your press are devoted exclusively to the manufacture of war goods. We are a prime contractor for the U. S. Navy, carrying on where we left off in World War I. Exactly what we are doing cannot be told, but you can be sure that the same precision, and more, that went into the building of Goss presses is now being applied to the production of needed naval ordnance. And we are producing at a rate 50% higher than we had planned and promised!

We are also building a new type of machine tool that may revolutionize parts manufacture for the automotive and aircraft industries. It is a thread miller that completely machines a thread, bore, and face in one turn. This machine is used primarily in arsenals on shells, guns, etc.

In addition, we are making parts for other manufacturers under sub-contract, principally aircraft and naval ordnance. We are manufacturing parts used in a new process for tin-plating, and we are building jigs, fixtures, and countless other items to speed the war effort and hasten the day of Victory.

To complete our production capacity, about 2% of our facilities have been set aside to furnish necessary replacement parts for American newspapers using Goss presses and stereotype equipment. This must take care of your requirments for the duration.

Like all other Americans, we are looking forward to the day when our enemies will be crushed and we can return to peaceful pursuits. We won't quit until that day comes; but when it does, we will be ready quickly to convert our facilities to producing faster, more durable, more dependable printing equipment than ever before. Our engineers are working on that now . . . and they are making progress!

GOSS

THE GOSS PRINTING PRESS CO.
1535 S. PAULINA STREET, CHICAGO
NEW YORK • SAN FRANCISCO • LONDON

"AM I UP TO DATE TYPOGRAPHICALLY"

"The wise printer will use the coming year to replace his older matrices and types and install more modern faces—and thereby accomplish a double purpose: he will perform a patriotic service by scrapping his old type and matrices (war calls for scrap metals are now most urgent), and he will put himself in a better position to secure new business now and after the war. Make no mistake about it, the well-equipped, modern plant will make the best showing in the strenuous years ahead.

New Faces Will Build Business

"There are also manifold economic advantages in moving ready-made fonts from the manufacturers' shelves into every-day use by the printer. Well-dressed printing is more resultful than printing done from worn type, showing 'feathers,' broken letters, etc.—and the more resultful printing is, the more of it will be sold. Manufacturers' inventories will be reduced, putting them in better position to serve the industry when the emergency is over. Many printers will find that junking numerous old faces will enable them to purchase more modern series and, possibly, conserve some space.

"Newness, snap, class, modern equipment and efficiency, ideas presented with a freshness and clarity that wins attention—these are things that have made America step ahead and of which we can all be proud. Typographically speaking, the question for the printer to ask himself is: 'Am I up-to-date?'"

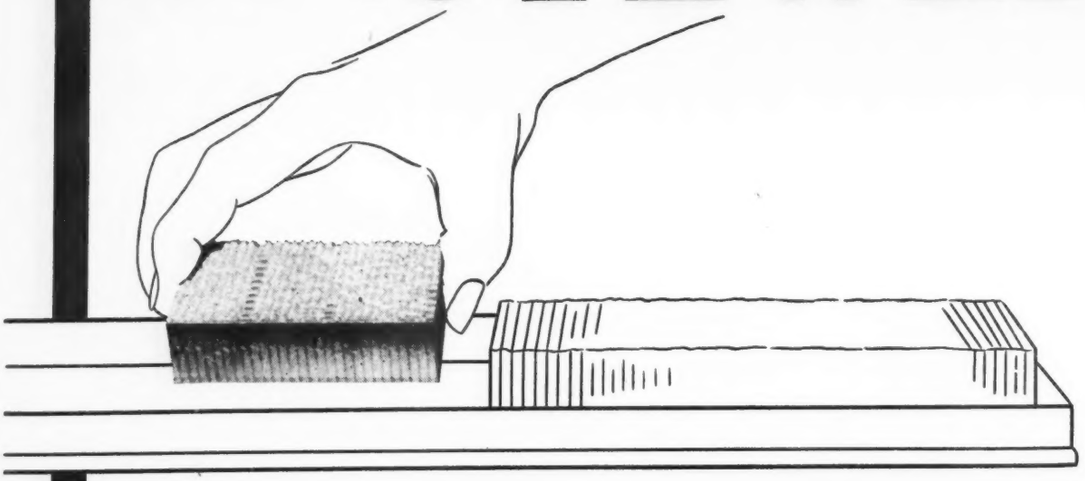
(Excerpt from "PRINTING" Magazine)

LANSTON MONOTYPE MACHINE COMPANY

MONOTYPE BUILDING, TWENTY-FOURTH AND LOCUST STREETS, PHILADELPHIA, PENNA.

Composed in Monotype 20th Century, No. 604J; and Monotype Poster, No. 700

1/3 FEWER



ERRORS

One-third of all your Linotype or Intertype corrections can be eliminated with Black and White Matrix Contrast Service. With Black and White contrast reference marks, errors are plainly visible in the assembling elevator and are detected and corrected before lines are cast. On news composition this means a one-third reduction in errors . . . with even larger savings in advertising composition. Let us know how many line composing machines you operate and we will send you proof of the savings Black and White matrix contrast service has effected in plants of the same size as yours.

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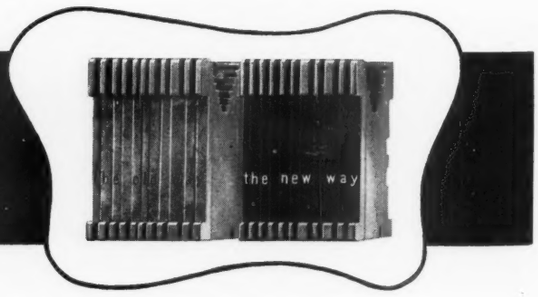


Program *of the Graphic Arts Victory Campaigns Committee*

THE program of the Graphic Arts Victory Campaigns Committee really is self-explanatory. As written by the Temporary Committee and amended with the approval of Deputy Chief E. W. Palmer of the Printing and Publishing Branch, WPB, the program is as follows:

1. To aid the Government agencies in developing effective follow-up and tie-in material for all newspaper, radio and magazine "Victory Campaigns" that may be conducted.
2. To effect this aid via the establishment of a Printing and Lithographing Council, and to work with that body.
3. To show printers and lithographers how their customers can tie in their advertising copy to Government themes.
4. To accomplish this by instituting an industry education program, using the trade journals, advertising publications, club and association bulletins and direct mail material syndicated to local groups.
5. To weld the entire industry into one unit to aid the Government via the creation of an Advisory Board, which will be representative of all branches of the Graphic Arts and will direct the foregoing patriotic program.

Graphic Arts

Victory Campaigns Plan

approved by War Production Board—100% aid to Government in coordinating efforts to win the war is sole objective—Organization work proceeding—How you may help

By MacD. SINCLAIR

FOLLOWING up the article carried in the September issue of *Printing Equipment Engineer* about the proposed plan to educate executives in the printing industry with respect to Government campaigns so that they can be of maximum assistance in putting over the campaigns and thus help to win the war, the plan now has received the blessing of Deputy Chief E. W. Palmer of WPB's Printing and Publishing Branch.

A permanent organization consisting of printing executives on a country-wide basis will be set up as soon as practicable. This group will be set up similarly to the Advertising Council which now works with various Government departments in developing publicity campaigns on specific projects. This group will be called Graphic Arts Victory Campaigns Committee. All of the Committee's efforts will be linked only to the Office of War Information's public relations undertakings, such as the National Nutrition Campaign, War Production Drives, War Bonds, Conservation and 35 other campaigns.

Objectives

Stated objectives of the Graphic Arts Victory Campaigns Committee are: (1) To co-ordinate all printing efforts to aid the Government in winning the war.

(2) To act as liaison between the Government and industry by interpreting the objectives of the various governmental agencies (as represented by the announced publicity campaigns of the Office of War Information) to the public via the printed word.

(3) To use as a guide as to what constitutes essential advertising the Treasury Department's ruling as to what types of advertising may be deducted from income taxes.

(4) To channel all future printing toward winning the war.

WPB Approves the Plan

Under date of September 24, the Committee received a letter from Deputy Chief E. W. Palmer of the Printing and Publishing Branch of the War Production Board in which full approval was given to the Graphic Arts Victory Campaigns plan as presented for consideration. In the letter, Mr. Palmer said, in part:

"Your Committee is to be congratulated upon having developed a plan which, in the outline submitted to this

$25 War Bond

Is offered as first prize in a contest for the best

Letterhead Suggestion

submitted for the permanent use of the new

Graphic Arts Victory Campaigns Committee

There will be 4 additional awards for the runners-up.

This contest is being conducted on a national basis. Ideas from artists, typographers, printers, lithographers, die stampers are welcome. The more the merrier.

Read the accompanying article about the newly approved Graphic Arts Victory Campaigns Committee Plan, then send in your entry. Who can tell? Maybe the judges will be so impressed they'll recommend the use of more than one letterhead by the Committee. Send sketches to

C. V. Morris,
Publicity Chairman

Graphic Arts Victory Campaigns Committee

111 Eighth Ave.,
New York, N. Y.

Branch, contemplates an all-out effort on the part of the printing industry to support and collaborate with all effort on the part of government agencies in effectuating every phase of all 'Victory Campaigns' developed and promulgated by government agencies.

"Likewise, it appears to be your plan to inform and aid the Graphic Arts Industries in holding up as a guide of essentiality the Treasury Department's pronouncement with respect to approved advertising deductions.

"Announcement has been made by the Advertising Division of the Office of War Information that it will shortly issue *A War Guide for Advertisers*, which publication should be a very helpful textbook in the promulgation of your proposed effort.

"Having reviewed the plan for this proposed cooperative effort on the part of the Graphic Arts Industries and recognizing the opportunities ahead for such industries to render valuable service to the Office of War Information, this Branch expresses the belief that so long as the proposed campaign is kept in conformity with War Production Board limitations as to materials and supplies, there can be no objection to the patriotic endeavor proposed."

GAVCC's Job

It was pointed out by Temporary Publicity Chairman C. V. Morris of the J. E. Linde Paper Company, New York, that all cooperation with these already established campaigns directed from Washington by the Office of War Information through its Chief of the Advertising Division Ken Dyke, is due entirely to private industry with private advertising dollars. "OWI needs more such assistance," stated Mr. Morris, "and it will be Graphic Arts Victory Campaigns Committee's appointed task to show ad men, printers and lithographers how they can lend a hand.

"That job, and only that job is GAVCC's, which means the coordination of all printing efforts with Uncle Sam's propaganda and educational needs necessary to the war effort."

An organization meeting was held in the Galleries of the General Printing Ink Corporation, 100 Sixth Ave., New York, on October 15. For this reason *Printing Equipment Engineer* is unable to report that meeting until its November issue.

At this meeting, the Temporary Committee presented its revised prospectus with objectives and plans. Copy for preliminary visuals and the initial promotion pieces, and a plan for soliciting industry financial support was presented to the over-all committee. It is expected that the approved and completed prospectus will be ready for distribution by the latter part of October.

Enthusiasm Spreads

A NUMBER of those associated with the Graphic Arts in as many cities in various parts of the country are enthusiastically organizing to assist in the Graphic Arts Victory Campaigns Committee's activities. Among cities in which trade associations and groups have organized are Philadelphia, Boston, Baltimore, Dallas, Fort Worth, Detroit, Chicago, Cincinnati, Worcester and Springfield. Several trade groups from these cities already have elected their representatives to the governing body of GAVCC.

In order to secure funds to carry on GAVCC activity, sentiment is being secured from the trade to determine if the $1-per-man-per-plant method of securing funds is acceptable.

Group action in helping to finance this activity received an impetus at the October convention of the Mail Advertising Service Association in Detroit. The individual letter shop operators pledged $1 per person in their plants.

How To Contact GAVCC

Printing and trade association executives who wish to initiate organization steps in their particular cities, or those executives residing in towns where no trade association exists, may get in touch with Temporary Chairman Edson S. Dunbar, c/o Crocker-McElwain Company, Holyoke, Mass., who will be pleased to see that you receive full information, prospectus, plans, etc., at the earliest moment.

Information Pool

The Committee has announced its intention of setting up a pool for the purpose of setting up information and information sources, and to secure talent from among artists, layout men, typographers, copy writers, etc., who will give their time and talents in the preparation of the educational material.

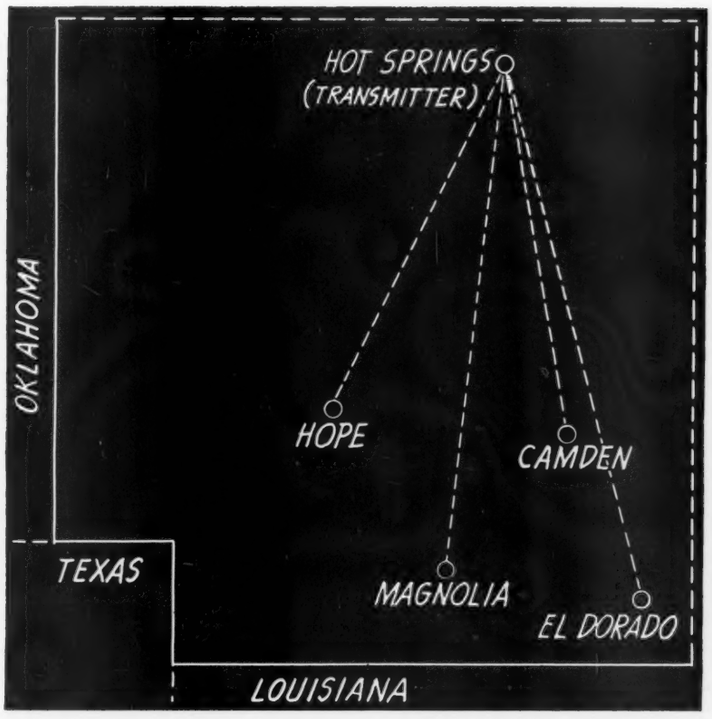
EXECUTIVE ¶s

John F. Devine, who was advanced to Operating Vice President of General Printing Ink Corporation, will continue as General Manager of The Fuchs and Lang Manufacturing Company Division. Robert J. Butler, as General Sales Manager, will remain in active charge of sales throughout the United States. 'Bob' Butler, as he is known to the lithographic industry, has been in charge of sales for the past year. His background of twenty-two years experience includes technical laboratory research and service sales work as well as lecturing on the subject of lithographic inks to litho organizations all over the country. Last year he was chairman of the Litho Club sponsored by the Lithographers National Association at Greenbrier.

Conservation Leadership Demonstrated at Typo Union Convention

NECESSITY for conservation of critical materials really is percolating through rank and file workers in the printing industry. We are glad to note the adoption of a resolution urging conservation by its members at the recent convention of the International Typographical Union in Colorado Springs. The resolution recognizes that "everyone working in newspaper and commercial composing rooms is handling materials that are vital to our war effort, because they are in some manner the same materials used for making different kinds of war equipment."

The resolution specifically mentions the shortage of copper, brass, lead and zinc and urges that such materials be closely conserved "if we are to have a sufficient supply with which to operate composing rooms, and thereby continue the source of employment." Members of the Union and all others are urged to prevent waste in handling materials entering into the finished product of printing plants.



Map shows southwest section of Arkansas. In the towns of Hope, Camden, Magnolia and El Dorado are located member newspapers of Southern Newspapers, Inc. These four cities are connected to a circuit extending from Hot Springs so that news may be transmitted simultaneously by Teletypesetter equipment to each of the four newspapers. The line-composing machines in each of the four newspapers are direct-connected with the transmitting equipment in Hot Springs and are operated automatically by tape punched on tape-punching units in response to impulses originating in the Sending Bureau at Hot Springs. The tape then is fed automatically into the line-composing keyboard operating unit. Publisher Washburn of the Hope **Star** states that at 8½ lines per min., the composing machines have for more than two months shown an average production of more than 400 lines an hour.

MULTIPLE NEWS TRANSMISSION

and automatic typesetting for newspapers now accomplished fact—Southern Newspapers, Inc., transmits news simultaneously to four composing rooms

By ALEX H. WASHBURN*

*Editor and Publisher Hope (Ark.) *Star*, Associate in the C. E. Palmer Newspapers.

WHEN the Commandos stormed the French coast August 19 and the press wires indicated for nine long hours that possibly the Allied Second Front had begun, there was a crowd around the automatic printers in the editorial office of every American newspaper —except a group of papers in Southwest Arkansas.

In Southwest Arkansas the crowd was not in the editorial office—it was around a linotype in the newspaper composing room.

Elsewhere the news was being received as copy, read, and then turned into type.

But in Arkansas, already famous for its Ozarks, blue diamonds, Bob Burns and giant watermelons, they have a brand new marvel—the first newspaper leased wire circuit transmitting type, in America.

At Hot Springs a stenographer copies spot wire news and feature stories onto a perforated tape, which reminds you of the principle of the old-time perforated player-piano roll applied to ticker tape. This tape goes into the transmitter, and in the receiving cities the telegraph machine reproduces the original tape and feeds it into the linotype, which sets type without an operator.

The Twentieth Century marvel which makes this possible is the Teletypesetter which, when applied to a keyboard typesetting machine, enables it to operate by means of the perforated tape, dispensing with manual work on the keyboard.

This first Teletypesetter Circuit in America was set up by the C. E. Palmer Newspapers, and when the Commandos stormed the French coast on August 19 the circuit was celebrating the completion of its second month of fast and trouble-free transmission of type.

The idea originated with C. E. Palmer, Southwest Arkansas publisher, and was collaborated upon by two of his partners publishing papers in the territory—Ray Kimball, publisher of the Magnolia *Banner-News* and immediate past president of the Arkansas Press Association, and Alex. H. Washburn, publisher of the Hope *Star*.

Mr. Palmer publishes the Hot Springs morning *Sentinel-Record* and evening *New Era*, and had installed Teletypesetter equipment in that plant in 1941. Since the tape for telegraph news and general feature stories was already available in the Hot Springs plant, and since Mr. Palmer also publishes the evening Camden *News*, at Camden, and the *Evening Times*, at El Dorado, the collaboration of the partners at Magnolia and Hope made it possible to set up an afternoon-paper Teletypesetter Circuit.

The circuit is filed from the Hot Springs plant, but is owned and operated by the four receiving newspapers: Camden *News*, Hope *Star*, Magnolia *Banner-News*, and El Dorado *Evening Times*.

The perforated tape and Teletypesetter are used at all points except El Dorado, where the same telegraphic impulse operates a conventional printer to produce copy.

The Teletypesetter Circuit operates from 8 a. m. to 4 p. m. an hour behind the opening and closing time of the regular press wires (7 to 3) to facilitate the

Ray Kimball, publisher of the Magnolia (Ark.) **Banner-News,** partner of C. E. Palmer, and immediate past president of the Arkansas Press Association. Mr. Kimball gave technical advice on the selection of equipment for the Southwest Arkansas Teletypesetter Circuit, and checked mechanical performance at the receiving points when the circuit began operating June 19, 1942.

—Photo by Hope (Ark.) *Star*

THE SENDING BUREAU—This was the scene in the editorial department of the Hot Springs **Sentinel-Record** and **New Era** when the Southwest Arkansas Teletypesetter Circuit began service to four cities, June 19, 1942. C. E. Palmer, head of the C. E. Palmer papers, operators of the circuit, is at the right; and left is Paul E. Marsand, of the Teletypesetter Corporation, who installed the circuit equipment. At extreme left is Miss Helen Akin, one of the perforating staff who turn copy into synchronized tape which will operate a typesetting machine automatically; and at right is Mrs. A. D. Christopher, filing editor of the Teletypesetter Circuit. The small black box at the extreme bottom of the picture, adjacent to Mrs. Christopher's perforating machine, is the transmitter which telegraphs the tape to the other cities before it is sent back to the composing room of the Hot Springs newspapers.

cleaning up of last-minute copy, and runs six days a week.

Teletypesetter apparently works equally well on a variety of machines, and the same tape feeds typesetters producing different width lines. Of the three towns using Teletypesetter machines, Hope and Camden produce a 7-point 12-em slug, on a Model 8 linotype at Hope, and a Model 14 at Camden; but Magnolia, using a Model 8 linotype, produces an 8-point 13-em slug.

Two months of installation and testing work on the Teletypesetter equipment in the various composing rooms preceded the opening of the circuit. New Teletypesetter matrices had to be ordered to synchronize every composing room with the tape then being used at Hot Springs and which shortly would be coming over the wire with the expectation that it would work perfectly in the typesetting machines.

When the composing rooms of the receiving cities were ready, Paul E. Marsand of the Teletypesetter Corporation set up the Hot Springs transmitter soon after June 1, made a two-weeks tour of the circuit installing the receiving equipment—and the newspapers notified the telephone company they were ready to take on the daily leased wire.

The Teletypesetter Circuit opened Friday, June 19, 1942. Anyone with as much as 20 years in the newspaper business will understand that feeling of suspense when, after a year of planning, the switch is thrown and a little piece of punctured tape starts moving silently through the "gate" of the transmitter in the complicated business of turning words into type in four cities 70 to 120 miles away. Was it working? It happened to be my job to monitor the wire from the transmission station the first few days, while Ray Kimball, from Magnolia, checked up on the receiving end. And so it was I, calling from Hot Springs to the receiving points that opening day, who heard the gladdest words known to man:

"Working? Hell, yes—it's pouring in!'

Opening day is not without its humor in any business. We had understood from the telephone company that June 19 would be devoted to testing the circuit, and so we had not prepared a regular news file. But at 9:15 a. m. the telephone company unexpectedly announced the wire was tested and ready, if we wanted it that day. All of the early wire report had already vanished into the Hot Springs composing room—but we gambled on picking up enough of the used tape to get by, catching up with the current report as best we could. There was some kidding at the end of the day when the receiving points telephoned us congratulations on telegraphing a galley of Hot Springs society news to the state at large. The next day, of course, our filing editor got hold of copy and tape together, transmitting the tape before sending it on to the Hot Springs composing room, and always knowing what was going out on the wire.

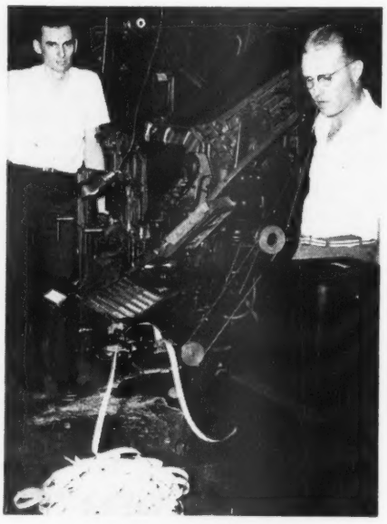
But this raises in every newspaperman's mind the question:

Just how do you manage using tape alone, where there is no printer writing out the corroborative copy, and where the telegraph desk is "blind" until the composing room proofs come up?

Briefly, the system used by the Southwest Arkansas Teletypesetter Circuit is this:

A filing editor at Hot Springs scales down the telegraph report to suit the approximate spot wire and time-copy needs of a group of papers in the same geographical area, all of them under 5000 circulation, and running four, six and eight pages daily. Practically all of the editing-out work usually done on the home-town telegraph desk, therefore, has been done previously on the Hot Springs filing desk—which is a sort of state-wire-bureau-for-small-cities operating within the state wire network but responsible only to the four newspapers it serves.

The matter of keeping linotype production abreast of the wire, so the home-town telegraph desk may have galley proofs only 10 or 15 minutes later than the conventional printer would have de-



—Photo by Hope (Ark.) *Star*

RECEIVING SETUP—This scene at Hope (Ark.) **Star** shows the standard arrangement of equipment adopted in the composing rooms of the receiving cities, being identical with that at the Magnolia **Banner-News** and the Camden **News** (El Dorado **Evening Times,** on the same circuit, receives copy on a conventional printer instead of tape). At extreme left is George W. Hosmer, mechanical superintendent of Hope **Star;** and at right, Alex. H. Washburn, the paper's publisher, partner of C. E. Palmer, who supervised the filing of the circuit from Hot Springs for the first week. The black box at extreme right is the re-perforator, reproducing the tape telegraphed from Hot Springs and feeding it direct to a Model 8 linotype equipped with Teletypesetter. A feature added at Hope after this picture, and made optional around the circuit, is the "automatic stop"—so that when the linotype catches up with the tape it will stop before breaking it. This permits continuous operation of tape direct from re-perforator to typesetting machine without the necessity of spooling the tape from the re-perforator and transferring it to the linotype spindle a galley's worth at a time.

livered the original telegraph copy, is solved this way:

The filing desk at Hot Springs is instructed to hold down spot telegraph news to not more than 80% of the file, filling in the other 20% with feature articles or "time copy"—and if the filing desk runs out of this "filler" material then is to be idled.

It is possible to outline in the telegraphic tape certain letters. The letter "T", repeated several times and bracketed with plenty of blank tape, precedes every "take" of non-spot news. Thus, if a particular shop finds its linotype running considerably behind the wire the "T" or "time copy" tape is wound up separately and set aside, to be used after presstime—while the linotype catches up with the spot report.

On bulletin matter of overwhelming importance—such as the Commando raid on the coast of France, August 19—the letter "E", repeated again and again, and isolated in the midst of blank tape, signaled the news to everyone. Any signal given sufficient separation from text matter by considerable blank tape both before and after the signal, is quickly intelligible to the composing room—and it is this "high visibility for the composing room" system which is absolutely essential when depending on tape alone. And this group of Southwest Arkansas newspapers has found that when run with the needs of the composing room clearly in view the Teletypesetter Circuit using tape alone is an unqualified success.

The leased wire transmits at the rate of 53 words a minute maximum. By changing the linotype drive pinion from 7⅓ lines a minute to 8½ lines a minute the composing rooms around the Teletypesetter Circuit have for more than two months shown an average linotype production of more than 400 lines an hour—a production of nearly 18,000 words in 8 hours, which is so close to the wire's average working speed that a relatively small amount of "time copy" or idling makes production figures match.

The tremendous value to the newspaper business which C. E. Palmer saw in the Teletypesetter Circuit when we first gathered in Hot Springs the summer of 1941 to lay plans for it is only too obvious today. While we had our normal staffs, Teletypesetter put surplus composition on newspaper dumps that had been painfully bare for years. And we ran more pages at the same cost or less.

But today we are at war. Between the demands of the armament plants for skilled workers, and of the armed services for fighting men, the newspapers face the greatest shortage of man-power in history. The Teletypesetter Circuit has given us a mechanical right-arm, making bigger and better newspapers in peace-time, and in war allowing us to preserve our continuity—which, after all, is the main guarantee that there shall be a free press hereafter.

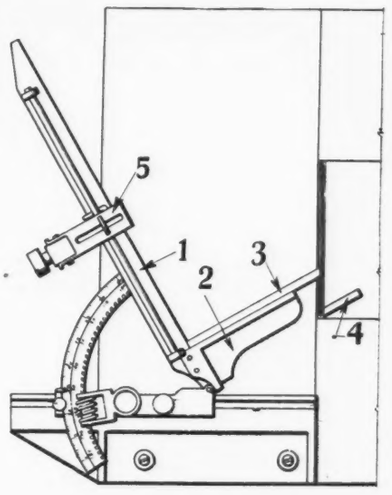
Saw-Trimmer Acute Angle Gauge

WALTER E. CAMPBELL, a practical printer of 2838 27th St., N. E., Washington, D. C., recently has been granted U. S. Patent No. 2,285,897 for an acute angle gauge which can be applied to any type saw used in planing mills, cabinet shops, and of more particular interest to our readers, to composing room saw-trimmer table tops. The illustration accompanying this article shows the work table as applied to the Miller saw-trimmer work table for explanatory purposes as employed by Mr. Campbell in describing the device to the United States Patent Office.

As is well known among composing room men, some years ago angle composition was introduced in magazine and newspaper advertisement composition. At the time it was thought these angle boxes and the like constituted a fad which would soon pass off. This angle type of composition, however, has persisted. A number of devices and methods have been introduced by composing room men each of which was designed to make the cutting of cut bases and rules a simplified proceeding. The latest of these is the one devised by Mr. Campbell as mentioned above.

As will be seen by scrutinizing the accompanying illustration, the device consists of a base which is affixed to the gauge block of the sliding saw table, an adjustable angle bar against which the slug, base, rule or border is to be placed for trimming to the desired angle, a toothed sector of a circle which is rotatable through a 90 degree arc, and a worm which is used for obtaining fine angle adjustments of the adjustable angle bar.

In using the device as an angle finder in case the artist or layout man has not specified the angles on the advertisement layout sheet, the device may be removed from the sliding saw table mounted upon a separate straightedge element and laid upon the layout sheet. The straightedge on the straight or horizontal lines of the copy. The angle arm may then be rotated through the necessary sector of a circle to coincide with the angle of the copy. The device is then lifted from the layout sheet and replaced on the sliding saw table for cutting base, slugs, rules or border to the proper angle.



This diagram shows construction of Campbell acute angle gauge for use on composing room saw-trimmers. At **1.** is indicated the acute angle bar against which slug, rule or base is placed. The bar is rotatable through an arc of 90 deg. by means of the toothed sector of a circle and the worm. Shown at **2.** is the complete attachment which is affixed to the angle bar **1.** when it is desired to connect with the main angle from 90 deg. The slug **3.** has been trimmed by passing through the saw and the waste end is indicated at **4.** The clamp **5.** is used for holding slug or base against angle bar **1.** The device is rapid in operation by quick engagement and disengagement devices provided by the inventor.

of the piece upon which the mechanism is mounted is laid on the layout sheet so that the straightedge will be positioned

If it is desired to cut rules or border so that their corners will fit properly when the rules or border pieces are placed at an angle of 90 degrees (as when making mitered boxes with corners cut to an angle of 45 degrees) the complement attachment may be affixed to the gauge. Ordinarily, when cutting acute angles on base material upon which mortised photo-engravings are to be mounted, the device is removed from the angle gauge, as will be apparent to those familiar with this type of work.

Various means for quickly adjusting the device to any angle are provided in the inventor's patent. Included is a clamp for holding each slug, rule or border piece during the process of cutting the angles.

Should the ad compositor desire to come into an angle from the 90 degree position when trimming rule, it is necessary to secure the complement to the main angle. With the use of the Campbell acute angle gauge no figuring whatever is necessary as the gauge automatically gives the complement to any degree to which it may be set.

Mr. Campbell states that definite plans for the manufacture and sale of this device have not been concluded just at present because of war priorities.

Large Process Camera Order

William Recht, General Manager of the Rutherford Machinery Company, division of General Printing Ink Corporation, announces that his company has been awarded by the Government what is probably the largest process camera order to be contracted for in the graphic arts industry. This is in addition to the program of all out production of war equipment now being manufactured at Rutherford. In making the announcement Mr. Recht stated further details concerning the contract could not be released for publication.

View taken during the Army-Navy "E" flag ceremonies at the plant of Mergenthaler Linotype Company, Brooklyn, September 15. Standing, left to right, are: Commanding Officer G. B. Welch, of Frankford Arsenal, Philadelphia; Linotype Vice President in Charge of Works C. A. Hanson; President of the Local Union Robert Litke; President Joseph T. Mackey of Mergenthaler Linotype Company; W. H. Rienecker, now in his fiftieth year with Linotype; Linotype Assistant Vice President and Assistant Works Manager George W. Allison; Lieutenant J. D. Gessford, U.S.N.R.

Production Awards . . .

received by several firms

AMONG the recent recipients of the Army-Navy "E" Award for excellence in the manufacture of war material are several printing equipment and supplies manufacturers. These are The Duplex Printing Press Co., the Hammermill Paper Co., R. Hoe & Co., Inc., Mergenthaler Linotype Co. and the Miller Printing Machinery Co.

Earlier recipients of the Navy "E" pennants, as announced previously in *Printing Equipment Engineer*, are the Goss Printing Press & Mfg. Co., which received its second recognition from the Government, as announced in the June 1942 issue, in the shape of an All-Navy "E" burgee, and the Miehle Printing Press & Mfg. Co., which received the U. S. Navy's "E" Award for excellence in the production of naval ordnance material. Miehle is one of the first 14 industrial concerns to receive the award.

The Hammermill Paper Co., Erie, Pa., received the Army-Navy "E" on September 14, and held suitable ceremonies at which time employees were each presented with lapel pins.

R. Hoe & Co. Receives Army-Navy Award

Mayor LaGuardia was the speaker for the City of New York during the ceremony in which R. Hoe & Co., Inc., formally received the Army-Navy Production Award. This company, now employing approximately 2000 workers, was founded by Robert Hoe, inventor of the rotary printing press almost 150 years ago. This plant, normally manufacturing newspaper and magazine printing presses has been converted to the manufacture of war equipment, thereby providing continued employment for its many workers.

R. Hoe & Co., Inc., was one of the first plants to effect this conversion and is one of the first to receive this coveted award. The formal presentation took place, Thursday, September 10, in the field adjacent to the plant, 910 East 138 Street and the East River. It was held at 5 p.m. so that both day and night shifts could attend without interference to production.

Before introducing Mayor LaGuardia, Vice President and General Sales Manager Arthur Dressel of R. Hoe & Co., who also acted as chairman of the occasion, told the gathering about the company's heritage in the building of war equipment. He reminded the audience of the Victory Rally six months previous, which was held to celebrate the delivery of an ordnance contract several months ahead of schedule and emphasized the presentation of the Army-Navy "E" as continuing recognition of high achievement in the production of war equipment by employees of R. Hoe & Co.

The pennant, a symbol of high achievement in the production of war equipment was presented to Harry M. Tillinghast, president of the company by Brigadier General Ralph K. Robertson, Commanding General, Metropolitan Military District, representing the U. S. Army.

At the same time, employees each received a lapel pin to wear in recognition of their service. These were conferred on representatives of the workers by Lieut. John D. Lodge, speaking on behalf of the U.S. Navy.

The Hoe Company also has a plant at Dunellen, New Jersey, which shares equally in the award but to avoid interruption to vital war production by bringing its workers to New York, the ceremony was transmitted to New Jersey and broadcast on special loud speakers to the workers assembled there.

Miller Receives Army-Navy "E" Award

ON Friday, September 11, the Army-Navy "E" Award for excellence in war material manufacture was presented to the Miller Printing Machinery Co., Pittsburgh, Pa. For the presentation ceremonies, the plant was not shut down. Employees remained at work except during brief 12 min. rest periods when the Award was made over a loud speaker system so that no production time would be lost. In lieu of the cost of formal ceremonies, the Miller Printing Machinery Co. presented each of its 1000 employees with a $25 War Bond, the total amount of which represented what it would have cost the company to hold the formal ceremonies.

Brig. Gen. H. C. Minton of the Pittsburgh Ordnance District, presented the pennant which was received by President W. G. Montgomery for the Miller Printing Machinery Co.

The plant was converted months ago to 100% war production and, according to Mr. Montgomery, the men for weeks have worked seven days a week, eight hours a day with only a break of one day in every five weeks, yet, when called upon to step up September output 98% of employees gladly gave up their Labor Day holiday which the company had planned to grant. Nearly 100% of the Miller employees devote approx. 21% of their incomes to the purchase of war bonds and income tax certificates.

In an article appearing in the editorial columns of the Monday, September 14 issue of the Pittsburgh *Sun-Telegraph*, it was stated: "The company is sponsoring a scrap drive which already has resulted in more than 1000 tons of metal being turned over to steel mills."

In his address to company employees over a loud speaker system, President Montgomery said in part: "I am proud, and I know you are, that the Miller Printing Machinery Company is included among those honored with the Army-Navy "E" Award, despite the fact that the best any plant can do along lines of production is as nothing compared to the endless sacrifices that are being made by our service men in all parts of the world. We are doing a good job and can be proud of our accomplishments, but after all, the best we can do is little enough to do for our country. I am sure there isn't a man among us who couldn't do infinitely more. We are definitely not yet winning the war and no sacrifice should be too great for us to make to bring victory at the earliest possible time."

Army-Navy "E" Awarded to Mergenthaler

JUBILANTLY, the Army-Navy "E" flag was raised and is now flying with the stars and stripes above the Mergenthaler Linotype factory in Brooklyn. The flag was awarded for excellence in the production of war equipment by Under Secretary of War Robert P. Patterson for Army and Navy.

The flag was presented to Mergenthaler Linotype Co. on September 15 by Col. G. B. Welch, Commanding Officer of the Frankford Arsenal. Acceptance of the Award was made by President Joseph T. Mackey of Mergenthaler. Walter M. Dear, President of the American Newspaper Publishers Association, presided as Master of Ceremonies.

Nearly 3000 employees are now wearing the Army-Navy "E" insignia in the form of lapel buttons. Presentation of the employee "E" insignia was made by Lt. J. D. Gessford, USNR to Robert Litke and W. H. Rienecker representing the Linotype employees. Acceptance of the employee "E" insignia was acknowledged by Mr. Litke.

In his letter of notification of the award to President Mackey, Under Secretary of War Patterson wrote: "The high and practical patriotism of the men and women of the Mergenthaler Linotype Co. is inspiring and heartening. Their record will be difficult to surpass, yet the Army and Navy have every confidence that it was made only to be broken."

In accepting the award, President Mackey said in part:

"I have assured Under Secretary Patterson that the achievements and your accomplishments to date will be surpassed. I know you will not fail. There is no yardstick by which America can be measured. You can't measure will power; you can't measure spirit—even by results. There's more to it than that—positive, mighty, intangible. America's dominant will today is to win the war. American industry rose to meet the emergency. Men and machines, manufacturers and engineers, scientists and technicians, skilled craftsmen and laborers united in a common cause. With keen interest, Linotype accepted the assignment of its Government, rolled up its sleeves and went to work—and now its schedule is twenty-two hours every day, seven days a week."

The Army-Navy "E" Award is presented to Miller Printing Machinery Company by Brigadier General H. C. Minton before a representative group representing the company and the Army and Navy. Left to right, these men are as follows:

Superintendent George M. Pfaller, Miller Printing Machinery Co.; Executive Vice President Gordon Montgomery, Miller Printing Machinery Co.; Captain W. S. Rial, Adjutant to Brigadier-General Minton; R. C. Downie, Executive Office, Pittsburgh Ordnance District; President W. G. Montgomery, Miller Printing Machinery Co.; Lieutenant C. C. Hewitt, United States Naval Reserve; Brigadier-General H. C. Minton, Commanding Officer of Pittsburgh Ordnance District; Frank B. Bell, Deputy District Chief, Pittsburgh Ordnance District; Clarence Rodgers, President of the Miller Progressive Association; First Lieutenant L. E. Reilly, in charge North Side Branch, Pittsburgh Ordnance District, and James Lawson, oldest Miller employee in years, with over 25 years' service.

Hoe Receives Army-Navy "E". After the ceremony the chief participants of the occasion hold up the pennant. Left to right: Brig. Gen. Ralph K. Robertson, U.S.A., Commanding General Metropolitan Military District, 2nd Service Command; President Harry M. Tillinghast; Vice-President and Works Manager J. L. Auer; Mayor Fiorello H. LaGuardia of New York; Major J. W. Rafferty; Lieut. John D. Lodge, U.S.N.R.

Inset—Vice President and Sales Manager, Arthur Dressel, makes opening address to distinguished guests and 2000 employees as R. Hoe & Co., Inc. receives the Army-Navy "E" Pennant for excellence in production.

Elected Vice President

Norma-Hoffman Bearings Corporation, Stamford, Conn., announces that Clarence E. Stevens has been elected Vice President in charge of Plant Operations. He assumed his duties on August 15. He succeeds Charles B. Malone who resigned on July 31 to become associated with another industrial business in Stamford.

ELIMINATING "SPRING" *in Full 30-pica Matrix Lines During Second Elevator Transfer*

By E. B. HARDING*

*Brookings, South Dakota

MOST line-composing machinists and machinist-operators have had the experience of some of the matrices at the left end of a full 30-pica matrix springing back into the first elevator jaws as the transfer levers separate after transferring the matrix line to the second elevator bar. Ordinarily, this can be adjusted by setting the safety pawl so that the pawl is pushed clear of the upper starting lever only $\frac{1}{64}$ in.

Some later machines are equipped with an extra adjusting screw in the safety pawl to prevent this trouble. Besides this, spring pawls have been added in the intermediate channel. Yet, some of the new machines give more trouble than the old.

In correcting the trouble, first check all six adjustments relative to the starting and stopping lever mechanism. Second, set the right side of the transfer finger 5 and $\frac{5}{8}$ in. from the left side of the transfer channel when the machine is standing in normal position. Third, adjust the turnbuckle so the spaceband transfer lever will bring the spaceband lever pawl hook $\frac{1}{8}$ in. to the right of the commencement of the incline on the spaceband box rails. Fourth, set the screw in the safety pawl so that the pawl will allow the transfer finger to clear the first elevator jaws $\frac{1}{8}$ in.

Why will it not work better if the clearance of the elevator transfer finger is more than $\frac{1}{8}$ in.?, you ask. Because the transfer finger will never clear the elevator jaws more than $\frac{3}{16}$ in. on a full 30-pica matrix line, anyway. And if it does transfer farther, more pressure will be put on the line against the second elevator bar delivery pawl, G-77. Where there is pressure there is a tendency for the line to spring back to the left. Reduce the pressure and you eliminate the spring in the matrix line.

But suppose these normal adjustments do not bring results? While it is, as a rule, unwise to alter the normal adjustment procedure, sometimes it seems necessary to do so. For instance, many of us "break" the receiving end of a new second elevator bar (though it should not be necessary), we stone off the first elevator adjusting bar, we drive the dowel pins from old distributor bars, we grind a high distributor box rail if it cannot be adjusted, and do many more such things that are "kind of" off the record. Well, here's one you might try adding to the list: When the normal transfer adjustment procedure described above fails to bring results, reduce the width of the second elevator bar delivery pawl by one-half. This will still further relieve the pressure of the transfer finger matrix line upon completion of the transfer to the second elevator bar and, of course, eliminates the possibility of "spring." Do not be surprised to find that it will make as much as $\frac{3}{16}$ in. difference in the space between the first elevator jaws and the left-hand matrix in a full 30-pica matrix line.

Separating Block for removal of electros and copper halftones from wooden base

By ALEX ALBERG*

*General Printing Superintendent, Unity School of Christianity, Kansas City, Mo.

HERE in the printing plant of the Unity School of Christianity we have worked out a device for facilitating quick removal of electrotype plates, copper halftones and zinc etchings from the wooden blocks upon which they are mounted. Recently we have found a considerable use for this device in view of the War Production Board order requiring the disposal of obsolete printing plates.

The separating block has been very useful to us. Recently, in one day, three boys removed 2000 lbs. of electros, 200 lbs. of copper and 200 lbs. of zinc engravings from mounting blocks in 8½ hrs. I am sure this could not have been done by the old method.

Alternative Method

An alternative method for removing cuts from bases will be mentioned here briefly, because executives in some plants will feel that making the larger separating block will not be warranted because of the small number of cuts to be demounted. Simply take two pieces of steel furniture, 40 picas long by 10 or 12 picas wide; place a piece of halftone wood base between the ends of the steel furniture and then lock up the steel base pieces and the wood base in a stout job chase; place the chase on an imposing table or a solid stand and proceed to remove the cuts as outlined for the other device described in this article.

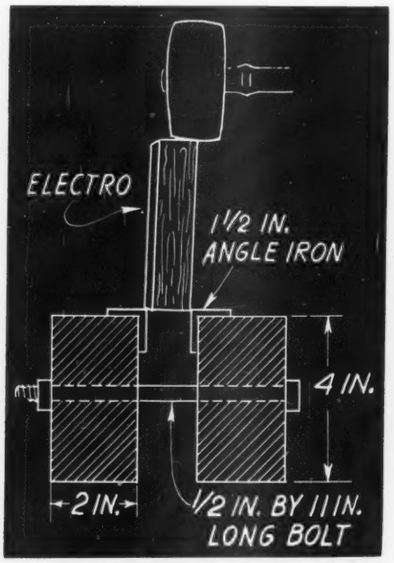
Separating Block Described

The device consists of two pieces of 2 in. by 4 in. wood, 30 in. long. The wooden pieces are held together by two ½ in. by 11 in. long square head bolts with nuts. The bolts may be spaced apart a sufficient distance to accommodate the largest cut in the plant. In our case this is 24 in. One corner of each of the wooden pieces is faced with 1½ in. angle iron as shown in the cross-section diagram. The angle iron pieces are held to the wooden pieces by flat head screws, the holes for which were countersunk in the angle iron. The corner of one of the angle iron facings is dressed down to a fairly sharp edge. This is the edge against which the metal part of the cut is placed. The corner of the other angle iron facing may be slightly rounded to permit easy passage of the wooden cut base when the base is struck with a heavy mallet or hammer.

The two 2 x 4 pieces are spaced far enough apart so that the angle iron pieces will support the metal part of the cut while permitting the wooden base to go down past the corner of the other angle iron piece. This can be done by placing pieces of wood halftone base between each end of the angle iron.

One or more sharp hammer blows, according to the size of the cut, will remove most any base from the cut. The cut is held in position on the separating block with one hand while the other hand wields the mallet or hammer.

The device may be mounted on stout legs, or it may be laid upon an iron imposing table top while in use.



Cross-section view of cut separating block used in printing plant of the Unity School of Christianity, Kansas City, Mo. This devise is a great aid in facilitating removal of electros and copper halftones from wooden bases. After the base has been loosened from the cut it is easy enough to pry off the cut with a screwdriver or prying tool.

View showing a corner of building owned and occupied by the Hillsboro Printing Co., Tampa, Fla. Because Florida soils are wet, a basement was eliminated. The floor is set 2½ ft. above the ground so paper stocks won't be ruined by dampness. The working surface of the floor is maple wood. Machines are supported on concrete foundations.

Substantial Southern Commercial Plant

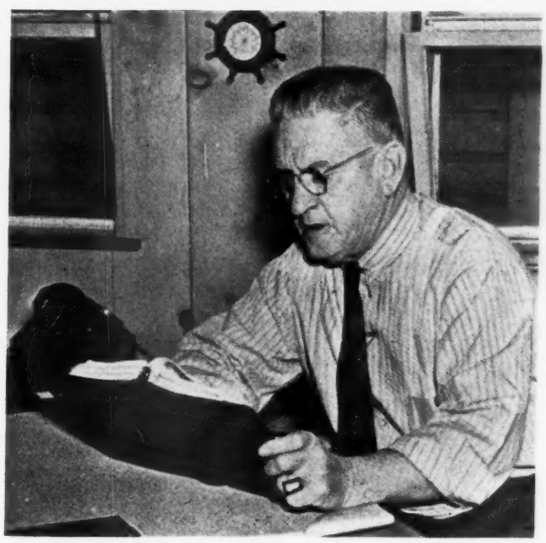
By STAFF WRITER

A LANDLORD who wanted too much rent was responsible for a new building and a more than 20% increase in volume for the Hillsboro Printing Company, 1720 Tampa St., Tampa, Florida. Other benefits for which the recalcitrant landlord may be blamed are improved lighting and better working conditions.

"We knew we were outgrowing the old place," Frank B. Hill, president and general manager said, "and we had long planned a new building but we kept putting it off. So one day when the landlord wanted more money we decided to build our own building just the way we wanted it."

The new building, which duly came to pass and has been occupied by the company for the past four years, contains many unusual features. Florida soils are wet and concrete basements and foundations hold moisture which is not good for paper stocks in printing offices. All of this kind of trouble was summarily eliminated by placing the new Hillsboro building two and a half feet off the ground with wooden floors. Machinery was set on concrete foundations but all working floor surface is maple wood. And after four years working on this type floor the workmen are enthusiastic. The ceiling is insulated with 1 in. Celotex and proper temperatures are easily held both winter and summer.

The building contains 6500 ft. of space and is located on a southwest corner. The composing and pressrooms were placed in the corner of the building and large windows using steel sash provide plenty of north and east light. Mr. Hill said this would have been an ideal corner for the business office but he considered the composing and pressrooms had prior claims on light, so he put the business office on the other end of the building. The company owns the property south of the building and future new additions will place the business office in the center.



Frank B. Hill is president and general manager of the Hillsboro Printing Co., Tampa, Fla. Firm specializes in high class letterpress and operates a bookbindery.

Venetian blinds were installed on all windows which have proved perfect for regulating the large amount of light provided. The business office is finished in knotty pine and was refurnished with new and modern office equipment, with plenty of streamlined desks and chrome tubing.

The Hillsboro Printing Company specializes in high class letterpress printing and operates a complete bookbinding department. Press equipment includes two Miehle verticals, a Miehle No. 3 cylinder, two Miller Simplex. Other equipment includes a Model 26 Linotype, one Seybold cutter and a ruling machine. The plant employs 19 persons regularly with some increase during busy seasons.

Urges Plant Conservation Meetings

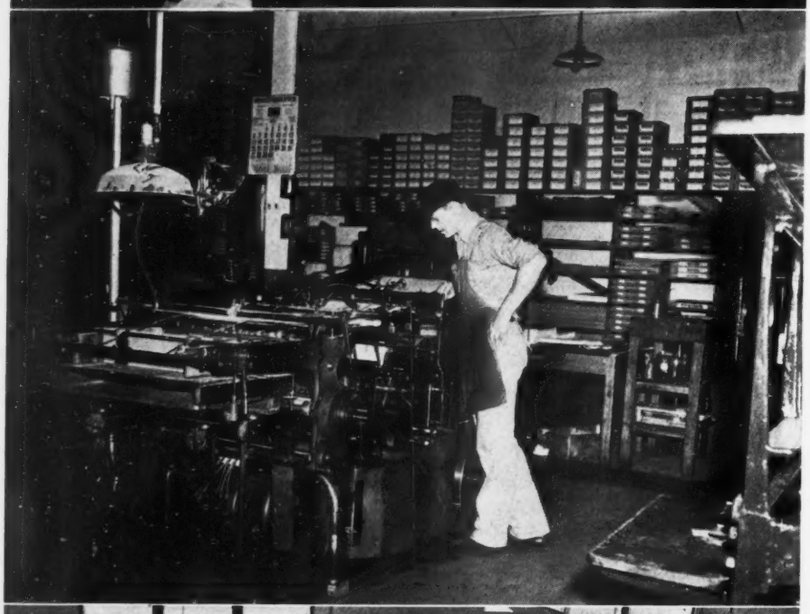
DURING the course of his talk before the convention of the International Typographical Union Convention at Colorado Springs in September, Leon A. Link of the Printing and Publishing Branch of the War Production Board, urged the delegates to promote plant and chapel meetings for the purpose of conserving critical materials used in the printing industry.

These meetings can be arranged for by talking with the plant superintendent, departmental foreman and the chapel chairman, according to the method which seems best in the plant.

Printing Equipment Engineer feels that if employees generally are permitted to take the initiative in plant conservation meetings, those employees will be more conscious of the need for saving critical materials, inasmuch as effective conservation really begins with the individual.

In speaking before the Typographical Union delegates, Mr. Link said, in part:

"You men who are here today, are leaders among the men with whom you work. You have been selected to represent your fellow workmen. They look to you for leadership. For that reason you can be of great service to your country, if upon your return to your home city, you will take it upon yourself, to promote the idea of saving essential materials. I would suggest you hold meetings in the different plants in your city and tell the men employed in the composing rooms and other departments of these plants, the real necessity for making this saving. I know that similar meetings have been held in a number of printing plants, and I also know that these meetings have resulted in the saving of much material that is vital to us as a Nation at this time."



Since moving into the new building there has been a steady increase in addition to the regular upswing of business and Mr. Hill estimates the new building is directly responsible for an increase of at least 20 per cent. The firm does nearly $100,000 a year, with the volume exceptionally well spread and evenly distributed throughout.

Mr. Hill is a firm believer in the inherent quality of letterpress printing and directs all his efforts to the promotion of this kind of printing.

"More than 80% of the quality printing is done by letterpress," Mr. Hill said. "We try to show our customers why it is better for them to buy quality work. We try to show them how their printing represents them as it goes out all over the country and how foolish it is for a wise, sedate and successful business house to send out its advertising message with cheap printing."

The Hillsboro Printing Company is one of the few Florida printing firms regularly issuing a house organ. For several years it has published each month a magazine called *Frank B. Hill's Magazine*. This magazine is edited by William Feather, of Cleveland, Ohio, an experienced house organ writer, and no changes are made in his copy. The magazine is issued on regular schedule, which, according to Mr. Hill, is the most important thing.

Mr. Hill has his own ideas about house organs. "Most plants who issue house organs," Mr. Hill said, "plan on doing all the designing and copy writing with the result that during the slack season they get out some fine jobs. These fine pieces impress the customers they are mailed to and bring back a nice bunch of business. The plant then gets busy and doesn't have time to work on the house organ again until business slows down. The result is a few good issues are gotten out and then a series of issues are haphazardly written and hurriedly printed. In my opinion, the good work done by the good issues is lost by the sloppy ones. We get out the same type of magazine all the time, maintain the quality and appearance at a set standard, which we don't want to lower or raise and we keep it up twelve months in the year. We've found this kind of a house organ will bring in business and hold it."

The Hillsboro Printing Company was established in June, 1918 and Mr. Hill is a practical printer himself, having worked at the trade in many different plants. His employees have been with him for an average of about fifteen years and there is close cooperation between management and employees. The annual beach picnic in which all employees participate, is looked forward to each year.

"From the lowest paid to the highest paid employees," Mr. Hill said, "you will find they all like the same things we in the front office like. They have the same hopes and desires and the same feelings. We try to treat them accordingly."

Mr. Hill is president and general manager of the company; Russell Hartwick is vice president; Elmer Tucker is plant superintendent and Rowland Hill, son of the president, is foreman of the composing room.

Adjustments for line-composing machine assemblers and how to make them—Always make star wheel spring tension adjustment first—all other assembler adjustments are incidental to it

By QUIDO E. HERMAN*

*New Athens, Illinois.

DURING the last two years it has been the writer's privilege to adjust the assembling mechanisms of over 1000 line-composing machines of various models. During that time it has been found there are adjustments which have been more or less confusing to machinists and operators alike, the most frequent being assembler chute and spaceband chute adjustments. It is with the intention of clarifying instructions for making these adjustments, as well as other assembling problems, that this article is written.

We shall assume, of course, that keyboard, magazine escapements, matrices, belts, etc., are in good condition, and shall cover only the assembly of matrices and spacebands.

Assembler Entrance Partitions

The top of each of the assembler entrance partitions should be deflected so as not to interfere with the escape of matrices from the magazine. The lower end of the partitions should be bent to the left sufficiently to partially deflect the matrix before it reaches the matrix delivery belt, thereby causing the matrix to fall at an angle and lay on the belt, rather than drop directly vertical upon it. This angle drop of matrices in addition to facilitating matrix assembly in proper sequence, lengthens delivery belt life considerably. The third partition from the left should be so positioned that the first five channels of matrices fall upon the assembler chute rails and directly into the assembling elevator without striking the belt. On new style Intertypes and on those older machines equipped with the Sennett assembler the matrices will, of course, strike the belt.

Linotype Assembler Chute—Old Style

The purpose of the assembler chute is to control travel of matrices from the matrix delivery belt, into the assembling elevator. This is done by adjustment of the height and angle of the chute finger prongs, as follows: Turn the starwheel so one of the spokes is in horizontal position, then with a thin matrix on the end of the starwheel spoke and against the assembler slide finger, the prongs of the chute plate should be bent down so they will clear the top of the matrix by from 4 to 6 points. This will provide an angle of approximately 20 deg. on the bottom of the assembler chute finger prongs. The heel of the chute finger should be about 10 points from the assembler block rails when making the adjustment. The chute finger is adjustable and should just contact a capital W matrix of the size of type used. Important also is a quite strong coil spring on the assembler chute. This coil spring must have sufficient tension to cause the chute finger to contact a small matrix which follows a large matrix, and prevent it from jumping out of the assembling elevator.

It must be borne in mind that when a machine contains 5½, 8, 12 and 18 point fonts, assembler settings necessarily must be in the nature of a compromise, so that all point sizes will work to best advantage.

Linotype Assembler Chute—New Style

This chute is composed of three parts—the chute itself, and the two springs on the first assembler entrance partition. These springs, or fins, should be adjusted so the longer one clears the matrix delivery belt by about 6 points, and the short, or secondary spring, should just make contact. Very little tension is required. This chute will handle all sizes of matrices without adjustment, because it controls the lugs of the matrices only, and as they are always on the right side, the matrix body thickness size makes no difference. In adjusting the distance of the heel from the assembler chute rails, use a large matrix and just allow the chute to clear the matrix lug. The distance is about 8 points. The most important adjustment on this type of chute is the tension of the assembler chute spring. Use almost twice the tension as for the old style coil spring and it will be found the chute will move very little, thereby controlling various sizes of matrices. The tension must be sufficient to maintain the chute in its normal position when the matrices strike the chute.

Perfection Chute Spring

This style chute is adjusted much the same as the old style Linotype with respect to distance from the starwheel and the 20 deg. angle. It may be necessary to do considerable bending of the chute above the attached prong plate, but when it is properly adjusted it works very well on machines upon which a given

(*Continued on Page 36*)

HOW NEWSPAPER EXECUTIVES CAN HELP

PRINTING plant executives need to have some kind of overall national perspective in order to bring home to them the necessity for conservation of critical materials required for making war equipment and materials. For that reason, we are printing below some total amounts of critical materials used by the newspaper printing industry during the past year as expressed in pounds. These totals were given in a talk delivered by Newspaper Specialist Leon A. Link, Printing and Publishing Branch, War Production Board, before the Illinois Newspaper Mechanical Conference, at Peoria, on September 27.

It is true that no one plant can save or conserve enough of these critical materials to win the war, but, as is pointed out by Mr. Link, the savings in your plant might be sufficient to save the lives of one or more boys from your plant who are now or later may be on the fighting front. The opportunity for the saving of materials will be apparent to all because of the large amounts involved, and the necessity for the newspaper printing industry to act collectively in holding them down to the minimum.

Brass	1,970,000 Pounds	Foundry Type	450,000 Pounds
Bronze	660,000 "	Zinc	8,300,000 "
Copper anodes and sheets	400,000 "	Solder	20,000 "
Stereotype Metal	12,000,000 "	Babbit Metal	20,000 "
Linotype Metal	8,000,000 "	Shellac	100,000 "
		Nitre Acid	9,000,000 "

In addition to the above items the newspapers used approximately 4,000,000 tons of print paper in a year. To manufacture that paper it required the following items:

Wood	4,240,000 Cords	Alum	13,000 Tons
Sulphur	75,000 Tons	Coal	2,000,000 Tons
Lime	60,000 Tons	Elec. Power	5,600,000,000 K. W. Hours

It required over 200,000 cars to haul the materials to the mill and to deliver the paper to the consumer. This does not include the logs that were floated to the mills.

Repair Parts List will be prepared by machinists for cooperative interchange among Illinois newspapers in emergency — Officers elected at Illinois Mechanical Conference

THE annual fall meeting of the Illinois Newspaper Mechanical Conference was held in Hotel Jefferson, Peoria on September 26 and 27. As in the case of other craft conferences held recently, much of the discussion was related to production under the limitations imposed by war conditions. Principal speaker before the newspaper mechanical executives was Newspaper Specialist Leon A. Link, of the Printing and Publishing Branch, War Production Board. Among other things, present indications are that the war will impose further curtailment of the use of pictures in newspapers because of the serious shortage of zinc and acids used in the engraving process. "Serious restrictions," warned the speaker, "will be placed upon newspapers in the use of zinc and full details will be announced at an early date."

Now being released in amounts determined from month to month, nitric acid also presents a problem because it is used extensively in the manufacture of munitions and war equipment. The speaker urged conservation of all equipment and supplies, particularly equipment, because manufacturers have converted their plants to war production.

Composing room machinists attending the meeting got together and agreed to prepare a collective list of spare parts for replacement purposes on various machines so that the parts can be loaned temporarily to member papers in an emergency, until new parts can be secured. Orders for repair parts cannot be obtained promptly in all cases.

Pressroom Foreman Howard Colton of the Bloomington *Daily Panagraph* was elected president of the group to succeed William H. Baldwin of the Peoria *Star*. Other officers named were Don Shelley, East St. Louis *Journal*, who was named vice president; Ralph S. Patterson of the Elgin *Courier-News*, was elected secretary-treasurer. Mr. Baldwin is now a director.

Delegates were welcomed to Peoria at their Sunday noon luncheon by Claude U. Stone, publisher of the *Star*, and by Managing Editor E. E. Soules of the *Journal-Transcript*. Speakers at the Sunday night banquet were George Barrette and F. R. Oakley of the Peoria *Star*.

A musical treat was provided by 30 members of the Peoria chapter, Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, with John Hanson directing.

Getting in the Scrap

THE American Industries Salvage Committee has been hard at work getting organized so that industry in general will turn in scrap materials, machines and equipment needed for the winning of the war. Industrial salvage and conservation form the backbone of the War Production Board's campaign to put the nation's waste back into production.

Printed below are 10 suggestions for proceeding with scrap collection. The organization in your plant to operate an effective salvage collection need not be elaborate or costly—in fact, it works best when it is simple and unencumbered with extra officials and unnecessary steps.

It is management's function of course, to send obsolete equipment to the scrap heap, but there isn't anything to prevent the wide-awake plant production executive reporting such obsolete equipment to management. In the present emergency, either dispose of equipment if there is a call for it, or put it to work as scrap for the weapons of war.

The 10 suggestions for effective scrap collection as submitted by the American Industries Salvage Committee are as follows:

1. Head up the campaign by appointing an able executive of the company, armed with authority to act.
2. Use posters, illustrations, pay-envelope stuffers, and all other publicity means to enlist all employees in scrap campaign.
3. Comb plant and yards for dormant scrap and unusable and abandoned equipment.
4. Survey all plant equipment, particularly idle, standing or discarded machines.
5. Classify and segregate scrap and supervise its handling.
6. Make each foreman responsible for preventing spoilage and waste in his department.
7. Report promptly equipment which is obsolete.
8. Salvage usable parts from equipment marked for scrapping.
9. Speed return of scrap to mills and refineries through existing channels. Report regularly on collections of scrap to the Industrial Salvage Committee set up by the War Production Board in your community.
10. Enforce monthly re-checks in every department to find scrap material overlooked previously.

Repentant Isolationists

By R. O. VANDERCOOK

IT has been written that there is joy in the celestial spheres in a man who sees the error of his ways and tries to reform them.

The great error made by many of our isolationists was that they believed too much in the goodness of all human nature. They believed that it was impossible for an intelligent nation like Germany to come to the conclusion that no promise was valid and that promises were only to be made to the innocent and unsuspecting, to throw them off their guard, and having thrown down their defenses it was an easy matter to enslave them.

When events proved conclusively that no promises made by those now ruling Germany could be believed, the most strenuous isolationists turned about and became the most vigorous advocates for a united front.

The coming election will show emphatically what the real spirit of America is.

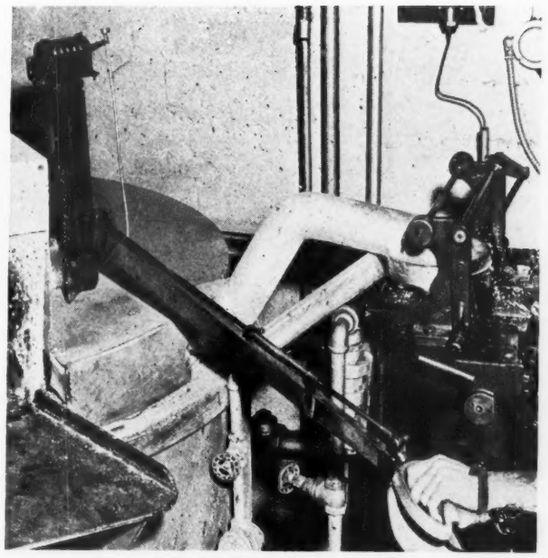
These reformed isolationists should not be smeared because of their mistaken policy, when it is clearly shown that they have reformed.

Many voters will naturally conclude that because they could not see the handwriting on the wall and therefore became isolationists, they did not have the grasp of situations that would entitle them to reelection.

The opponent of the isolationist candidate should be very careful not to use smear tactics.

Death Announced

The passing of W. I. Burch, Managing Director of the Monotype Corporation, Ltd., of London, Eng., occurred on September 3. He had been associated with the English Monotype organization for more than 50 years. He was elected managing director in 1919. Mr. Burch had made many trips to America to visit officers of the Lanston Monotype Machine Co. in Philadelphia. He had a wide personal acquaintance in the printing industry in the United States.



View of section of Pony Autoplate equipment in plant of Warren (O.) Tribune Chronicle. The Redington counter keeps track of number of stereotype plates cast per month which is great aid in keeping metal dross records.

Accurate Dross Records

By R. M. O'CONNOR*

*Mechanical Superintendent, Warren (O.) *Tribune Chronicle.*

IN common with other newspaper production departments, we have become interested in keeping dross figures, especially with reference to stereotype metal dross. To determine the quantity of metal running through our Pony Autoplate machine every day, we felt it was necessary to use a more accurate means than by merely estimating the quantity of stereotype plates cast from day to day.

We purchased a Model A Redington Counter from American Type Founders. Our maintenance mechanic mounted the counter on a steel yoke as shown in the illustration above the Pony Autoplate metal pot in such a way that the yoke straddles the pump lever. The counter lever is connected to the pump lever by a spring cushioned steel rod. The spring takes up any shock in the downstroke of the pump lever.

In this way, it is only necessary to read the total counter figures at certain determined intervals to obtain an accurate count of the plates cast. From the average weight per plate (which is calculated easily) we are able to maintain an accurate record of the number of tons of metal cast every month.

Tornado Prestwood Mallets

Breuer Electric Mfg. Co. announces that it has developed the Tornado Prestwood mallet for use in printing plants. The mallets are available without priority on short notice. The mallets are produced by taking very hard wood and making it much harder by using a chemical and compression process to multiply the hardness and durability of the wood. The chemically treated wood is reduced in size under extreme pressure. The mallets are said to be non-splintering and are refaceable to make them useful over a long period of time. The mallets are made in three sizes and weights as follows: First size: head measures 2¼ in. by 5 in., weight 14 oz.; Second: 2½ in. by 5½ in., weight 1½ lbs.; Third size: head measures 2 in. by 4 in., weight 10 oz.

Chemically treated wood formed under extreme pressure produces the Tornado Prestwood Mallet which is said to be non-splintering and can be refaced.

Sta-Hi Reel Chuck

Sta-Hi Corporation has announced development of a special chuck which is to be employed for mounting paper rolls on the reels of rotary printing presses. The chuck weighs 18 lbs. When used one chuck to the driving end of the roll on a 3 roll reel, the total weight of the steel is 54 lbs.

Development of this chuck was generated by the desire to eliminate metal-tipped paper roll cores. For every 1000 rolls of paper, 1500 lbs. of steel tip reinforcing is used on the cores. Consequently, 1500 lbs. of shipping weight is added to the weight of the cores when returned to the mill. Eventually, the core steel tips wear out and must be scrapped, thus necessitating the use of critically needed steel.

To illustrate further, 24 chucks used to mount paper rolls on 8 printing units would weigh 432 lbs. The weight of these 24 chucks represents about 29% of the steel required to reinforce 1000 paper roll cores.

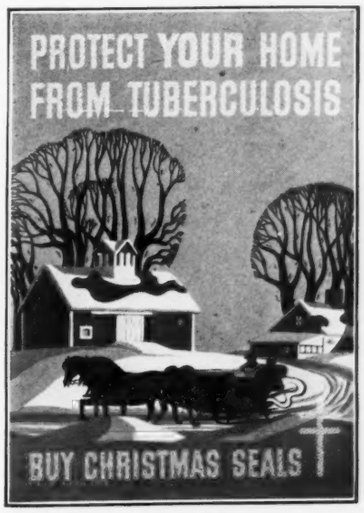
Where cores without steel reinforcing tips must be returned to the mill, the cores may be returned, rewound and used several times, because, manufacturer states, the chuck does not mutilate the core.

Due to the positive drive of the chuck, rolls may be registered for paster reel positions before placing in the reels as in automatic paster requirements.

View of Sta-Hi Reel Chuck for mounting paper rolls on rotary presses. Manufacturer states there is no slipping or change of roll position on the chuck. Chuck is operated by inserting a special socket wrench in the head. The socket for receiving the wrench is visible in this illustration. The expanding members, or shoes, are operated to tighten the chuck in the roll core when the wrench mentioned above is turned in the socket in a threaded stud. This action expands the chuck shoes by means of cones which bear on corresponding inclined surfaces in the shoes.

Keeping the Eyes of Los Angeles Young

A brochure entitled *Keeping the Eyes of Los Angeles Young*, has been published by Intertype Corporation. It consists of 16 pages and cover, 9¼ in. by 12¼ in., is well illustrated and printed in black and blue ink. Purpose of the booklet is to tell about the adoption of 8 pt. Regal No. 2 news type on 9 pt. slug by the Los Angeles *Herald* and *Express* recently. Readability of the new type dress is attested to by the mayor, president of city council and a number of movie stars. Fine screen halftone pictures printed on pebbled stock are well done.



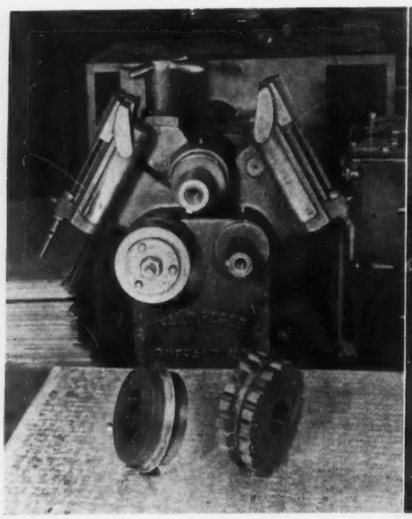


Fig. 1.—This illustration shows the Buffalo bending roll machine which was converted by The Timken Roller Bearing Co. for use as a scrap electric cable cover removing device in order to reclaim the rubber in the covering.

The machine is shown here with one lower wheel and the upper pressure wheel removed. The rubber salvage replacement wheels are shown in the foreground. Gripper wheel is at right and cutter wheel at left.

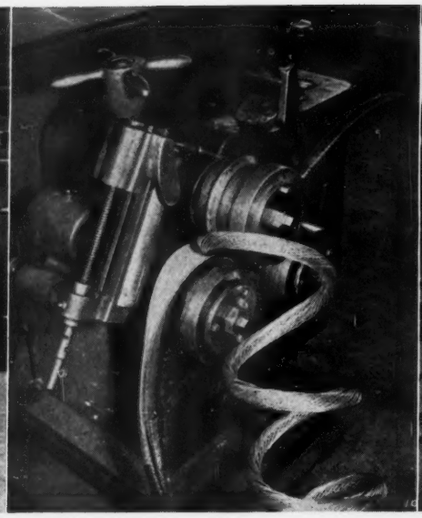


Fig. 2.—The cable is shown here entering the machine at the right and the stripped cable and rubber covering are emerging at the left. Cable rubber salvaging is accomplished at the rate of about 6 ft. per min. Cable sizes ranging from 5/8 in. to 2 in. are handled easily.

Fig. 3.—Here the operator in the plant of The Timken Roller Bearing Co. is feeding scrap cable into the cable rubber salvaging machine. Machine may be converted to salvage use in about 3 min. time by replacing two of the regular wheels as described in the accompanying article.

Timken Converts Standard Bending Roll Machine to Rubber Salvage Use.

LIKE other large corporations, The Timken Roller Bearing Company frequently accumulates sizable quantities of scrap electric cable. Until recently it has been general practice to burn the rubber and cloth insulation off these cables to salvage the copper. Timken conservation men, seeking a method of salvaging cable rubber, experimented with a standard Buffalo bending roll machine. This consists of three smooth wheels, two of which are in tandem beneath a third wheel which is centered above them. Varying pressures are exerted upon the material to be bent by raising or lowering the upper wheel.

Timken engineers removed the one lower wheel and replaced it with a notched gripper wheel. A sharp center-flanged whee replaced the upper wheel. No change was made in the third wheel. This conversion proved extremely effective in removing the outer layer of cable cloth insulation and the inner layer of fine rubber, which is so urgently needed at the present time. The gripper wheel feeds the cable between the flanged cutter wheel and the pressure wheel, slicing the cable open and peeling it simultaneously. The cloth cable cover drops away from the rubber leaving the rubber and copper cable in a salable condition without further attention.

Cable rubber salvaging is accomplished at the rate of about 6 ft. per min. Cables ranging in size from 5/8 in. to 2 in. are handled easily.

This machine is regularly used in connection with the sheet metal department and is converted to salvage use in about 3 min. by simply replacing the two regular wheels.

WPB Digest

The following explanatory material was held over from the September issue of *Printing Equipment Engineer* because of space limitations.

THE SMALLER WAR PLANTS CORPORATION: The Smaller War Plants Corporation now set up under the War Production Board can be of assistance to printers who have converted or are in the process of converting their plants to the production of war material. Here are the things which the Smaller War Plant Corporation is empowered to do.

1. To make loans to small business concerns, these loans to be used for the purpose of converting facilities to war production, or as working capital needed in the manufacture of armament items.

2. To act as a prime contractor for furnishing articles to the Government and to arrange for performing its contracts through letting sub-contracts to small business concerns.

Note particularly that the Smaller War Plants Corporation can concern itself only with matters pertaining directly to war production. It is not a federal loan agency to help finance distressed business concerns or to aid in the procurement or production of non-military items.

To the printer who is anxious to convert his plant to war work and lacks the necessary capital to do so, and to the printer who has already converted his plant but has been unsuccessful in securing sub-contracts, the Smaller War Plants Corporation can be of very real assistance. However, the printer must be able to demonstrate that he possesses the potential to become a competent subcontractor, able to carry out the work with a minimum of spoilage and a maximum of efficiency. (WPB Releases Nos. 1513 and 1553.)

TRANSPORTATION: Under a new set-up of ODT orders, operations of private and contract carriers, both local and over-the-road, will be under General Order ODT No. 17; and over-the-road operations of common carriers will be under General Order ODT No. 3, Revised. Local delivery operations of common carrier will be under Order 6, which is to be revised. ODT Order No. 17 thus takes the place of Orders 4 and 5 and all provisions of Order 6 as they apply to contract and private carriers. Under Order No. 17, the requirements for a 25 per cent mileage reduction as compared with the corresponding month of 1941, has been extended to all operations of contract and private carriers, over-the-road as well as local. The 25 percent mileage reduction is to be computed *after* deducting the mileage saved by the elimination of certain prohibited deliveries.

Beginning August 1, all trucks operated in over-the-road service must be loaded to capacity on a "considerable portion" of the outgoing or incoming trip; and trucks must use "due diligence" to maintain full loads on their trucks at all times while en route. Joint Information Offices are being established which, beginning September 1, must be consulted regarding securing of return loads. In the absence of such offices, the carriers must endeavor to secure return loads by calling other carriers at their point of destination and at principal centers en route before returning empty.

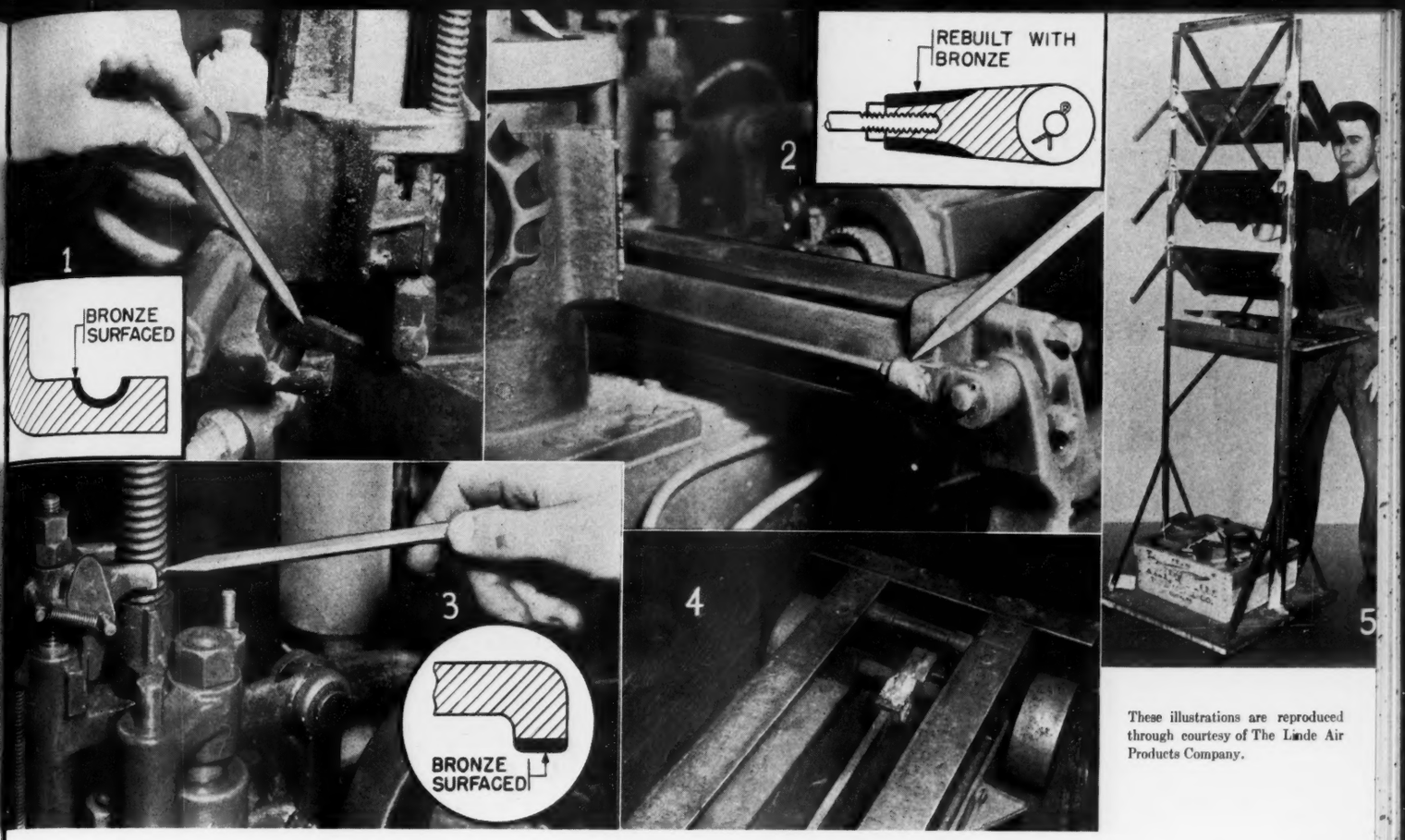
General Permit ODT No. 17-9 provides that "any motor carrier operating a motor truck in local delivery service, when such truck is engaged exclusively in the transportation of copy, proofs, tracings, or any other unfinished product for printing, blue printing, electrotyping, stereotyping, mimeographing or other similar process, (not including, however, supplies or any finished product), may make three deliveries of such unfinished products in any one calendar day." (ODT Releases Nos. BF-264, PM-3811 and PM-3812.)

TYPEWRITERS: The increasing need for typewriters at sea and on the fighting fronts has resulted in an urgent request by the Government that American business and American individuals sell to the Government standard model typewriters manufactured in 1935 or later. If you can spare any used typewriters of this description, get in touch with the nearest typewriter dealer whose store has been designated as an Official U. S. Typewriter Purchase Depot, authorized to act as buying agents for the Procurement Division of the U. S. Treasury. A premium price is offered. The need is urgent. (OWI Release No. 158.)

Use of an ordinary sand or grit blasting machine has been found effective for renovating typewriter rollers. Business firms can make an important contribution to the nation-wide rubber conservation campaign by use of this process. (O.P.A. Release No. 54.)

Mitts Protective Cream

Mitts is a water-soluble skin cream for application to the hands before starting work. Mitts cream is said to vanish as soon as applied to the skin, but leaves an invisible glove which protects the hands from grease, paint, dust, printer's ink, and the like. The skin coating washes off in soap and water and with it comes the dirt and grime. It protects the skin from many irritating materials which cause industrial skin trouble. Further information may be obtained from Mitts Mfg. Co. direct or in care of *Printing Equipment Engineer*.



These illustrations are reproduced through courtesy of The Linde Air Products Company.

Some Oxy-Acetylene Welding Applications in the Printing Plant

IN the present emergency, it may not be possible at all times to keep on hand spare parts for replacement purposes in the printing plant. Neither is it always possible to permit down time on the machine until a new part can be secured under present conditions. In the accompanying layout are shown a number of practical repairs of broken or worn machine parts, principally in the composing room. In the hands of an experienced operator, an oxy-acetylene welding outfit can be used to repair broken or worn machine parts promptly. Needless to say is that each machine in a printing plant should be protected against accidental damage and consequent production down-time with sufficient spare parts to get it going again quickly. Carrying vulnerable spare parts is just like carrying insurance.

Hand Truck Lifting Link Repair—When a heavy weight was dropped accidentally upon this cast iron lifting link, one section of the link was completely broken away. The truck was repaired by welding the broken link with 25 M. bronze rod.

Galley Frame—This galley frame is typical of equipment which may be fabricated by welding. It is constructed of cast iron brackets welded to angle iron frame work.

Pump Latch Repaired—The cast iron pump latch on this particular kind of typecasting machine wear in service from the action of the cast iron crossheads. When worn, they may be rebuilt with a 3/16 in. layer of bronze welding rod. The repair is substantially lasting.

Locking Leg Groove Built Up—The metal pot yoke for this typecasting machine wore oversize from use from constant contact with the steel locking lever. The groove may be built up by welding with 25 M. bronze rod and refinishing the built-up surface.

Link Built Up and Re-tapped—The pencil is pointed to a repaired cast iron link for an auxiliary draw-rod on a spring box. An old link was built up with 25 M. bronze rod by welding because the link body was not thick enough for threading. After the building-up operation, the hole was tapped to proper size.

Selected Specimen Book Pages

Lanston Monotype Machine Company has published Volume 3 of *Selected Specimen Book Pages Set in Monotype Faces*. The book consists of a number of book pages each set in a different type face. On the title page of each leaflet are shown characters available, together with information covering available sizes, keyboard combinations, and the like. Four new faces — Monotype Bell, Bembo, Fournier and Goudy Village are demonstrated; also the first showing of American Garamond and Monotype version of Granjon, together with a number of other types not previously included in this series. A limited number of copies are available to those executives writing for it on their firm's letterhead.

Wartime Conservation in the Office

One way to help in the present war effort is by concentrating on the conservation of office supplies and equipment. Many familiar supplies used in every-day office operation are becoming increasingly scarce and costly. Many types of office machinery and equipment are not procurable, and at the same time, record work resulting from wartime production has increased in volume. These conditions stress the importance of eliminating all possible waste in the office. The procedures employed by a number of companies to inaugurate or intensify existing waste reduction programs are outlined in a report recently issued by the Policyholders Service Bureau of the Metropolitan Life Insurance Company. The report is called *Wartime Conservation in the Office* and is available to executives who address the Bureau on their business stationery. Address: Policyholders Service Bureau, Metropolitan Life Insurance Company, One Madison Avenue, New York, New York.

Lundberg Passes

A. I. (Gus) Lundberg, (63), mechanical superintendent of the Ft. Worth (Tex.) *Star-Telegram*, passed away suddenly as the result of a heart attack at his home in Ft. Worth on Friday, September 25. Mr. Lundberg was well known throughout the Southwest, having been president of the S.N.P.A. (Western Div.) Newspaper Mechanical Conference for some time. He was born in Sweden and came to this country when he was 6 years of age. He was a Shriner and past master of Hemphill Heights Masonic Lodge.

Mechanical Executives

From time to time, executives send in to the Editor descriptions of production helps. Notice stories this month by Alex Alberg, R. M. O'Connor, E. B. Harding and Quido Herman.

If you have devised something in your plant, our readers would be pleased to know about it.

These lighting fixtures are mounted 36 in. above the imposing tables and furnish 100 footcandles of glare-free illumination.

PRECISION LIGHTING FOR PRINTING

By ROBERT G. CLARK*

*Westinghouse Lamp Division, Westinghouse Electric & Mfg. Company, Bloomfield, New Jersey.

PRECISION lighting for a precision industry. That sounds logical, doesn't it? And it is logical, for when industry is back on a peace-time basis fluorescent lighting will be adopted by modern printing plant executives as the solution to their lighting problems. They have heard that fluorescent lighting is the most efficient commercial light source yet developed — one reason for a large part of their interest. They have heard that it is a "cool" light and that it has excellent color-matching qualities. What they haven't yet appreciated, however, is that fluorescent lighting is the only available light source that will give them a high level of general lighting *comfortably*. Not only does it provide a better quality of light—both as to even distribution and accurate color control—but it produces about one-quarter the radiant energy or approximately one-half the total heat of an incandescent lamp. This factor alone adds to the comfort of those working under them. High level of low brightness lighting reduces eye strain and allows closer color matching. These are a few of the factors that make fluorescent lighting ideal for use in modern printing plants.

However, the installation of fluorescent lighting usually means a change-over from an incandescent or mercury vapor system and several factors must be considered before making the change such as:

1. Levels of Illumination required.
2. Location of Fixtures.
3. Wiring facilities.
4. Ease of Maintenance.

It is assumed that an engineered lighting survey will be made to determine the best solutions to these essential considerations.

Factors Involved in Seeing

A printer working with clean type is dealing with a "metallic mirror" with characters marked on it which because of previous proofing usually are darker than the shoulder. The shoulder or flat depressed portions act as a mirror and if the characters are to be seen at all they must be silhouetted. The solution is a light source of large area and low brightness mounted as low as possible in order to increase the size of reflector image and silhouette more of the characters.

Glare is another factor that must be contended with in working with type glare that originates from tens of thousands of tiny points of type the compositor must face for hours at a time. Here again, a large area, low brightness source is effective in improving this condition.

Color Matching is also an annoying factor to the printer—for even black is a color to the printer and one of his chief concerns is that the "color" of black should be right. Daylight fluorescent lamps will satisfactorily solve this problem provided they are correctly applied to "fit the work." There is a tendency to place the daylight fixtures directly over or on the side of the work table opposite the observer. The correct procedure, however, is to place the fixture over or slightly behind the observer to prevent the ink from reflecting the image of the light source rather than its own color.

By correcting these fundamental seeing difficulties the lighting becomes a factor not only in production but also in safety.

Recommended Levels of Illumination

Recent findings have revealed that the average levels of illumination in many printing plants is from 10-15 foot-candles which is about one-third of what it should be. Today, modern management is realizing more and more that higher levels of illumination will increase production, reduce eye-strain and result in more accurate work. Based on the scientific fact that existing foot-candle levels should be at least doubled if measurable and significant improvements in seeing are to result, the values shown in the accompanying table 1, are now accepted as standard for the printing industry. These recommendations also take into consideration the improvements of old light sources, the higher efficiencies of the new and the downward trend of lighting costs as a result of all these improvements.

Printing Plants:	**Foot-Candles†**
Bindery	30–50
Composing Room	
General Lighting	30
Imposing stones, compositors' banks	100–150
Press Room	30–50
Proof Tables	100
Photo-engraving:	
Blocking	30
Etching, Staging	20
Proofing	50
Tint Laying, Routing, Finishing	100
Photography:	
Dry Plate and Film	2000
Printing on Metal	2000
Wet Plate	3000
Electrotyping:	
Blocking, Tinning	30
Electroplating, Washing, Backing	20
Molding, Routing, Finishing, Leveling Molds	100
Trimming	50

†The value shown should be provided on the work regardless of whether in a horizontal, vertical or oblique plane.

TABLE 1

Fitting the Lighting to the Work

Once the quantity of light required (foot-candles) has been determined the next step is to provide the proper quality of lighting by "fitting the lighting to the work." Although the *quantity* of lighting has been found to be even more important in some industrial applications than the *quality of lighting*, it is obvious that in the printing industry *quality of lighting* is essential. A high level of general illumination properly distributed throughout the work area is the basic principle of good industrial lighting. In the printing industry, however, there is need also for additional local lighting where the more severe seeing tasks are performed. The lighting problem then, evolves itself down to providing the prescribed levels of general illumination, plus whatever local lighting is needed, and to arrange the fixtures so that the maximum seeing benefit is provided in these areas.

Special large-area light sources of low brightness produce 100 footcandles on the working area.

Composing Rooms should be treated with particular care since it is here that increased production and the reduction in errors will be most apparent. A combination of general and local lighting is required since the high levels (100 to 150 foot-candles) necessary for work on imposing tables and compositors' banks could only be economically obtained in this manner. The most satisfactory method of general lighting is to use the standard industrial type fluorescent RLM containing either two 40 w. or two 100 w. 3500 deg. white Mazda F lamps. If 40 w lamps are used there should be one lamp for every 36 ft. of floor area to be lighted and if 100 w. lamps are used, one fixture for every 65 ft. of floor area. Mounted from 10 to 12 ft. above the floor this will provide about 30 foot-candles of evenly distributed glare-free illumination.

Type cabinets can also be lighted with these same units (except with daylight lamps) by placing them over the front edge of each cabinet and about 3 ft. above the working plane. Mounting the fixtures in this manner illuminates the type cases when they are pulled out as well as the immediate working area. This method of lighting can also be used for work benches, lead and rule cutters, saw-trimmers and proof presses.

Imposing Tables, because of the mirror-like surfaces of the type are always difficult to light. Large area sources of low brightness should be used to reduce disturbing contrasts in brightness. A uniform reflection throughout the working area is desirable. The surface brightness should be low enough (3 candles per sq. in. or less) so the reflection will be comfortable to the eyes, as the raised type in the galley or form.

Special large area fluorescent fixtures covered with a diffusing glass panel and containing four 40 w. daylight lamps have proved satisfactory when mounted about 6 ft. 6 in. above the floor directly over the working area. Three-lamp fluorescent RLM's with opal glass covers are recommended also—one over each stone and approximately 3 ft. above it. Although the area of this fixture is not as great as the sky-light type of fixture, it is a satisfactory method of lighting an imposing stone because the brightness of the opal diffusing glass is only slightly higher than the special 4-lamp large area unit. By reducing eye-strain, this method of lighting enables the worker to detect errors rapidly, insuring accurate work and increased production.

Press Rooms containing either rotary, flatbed or platen presses of various sizes must also be lighted by general lighting plus additional local lighting where it is needed. Here again, a large area low brightness source is recommended for effective seeing and the elimination of shadows. As in the composing room, general lighting can be provided by using either two or three-lamp RLM fluorescent fixtures mounted from 10 to 12 ft. above the floor and spaced uniformly. Wherever possible, the fixtures should be located directly over the presses unless the size and shape prevents such use. Large rotary and flatbed presses are usually equipped with local lighting fixtures by the manufacturer and general lighting is adequate for their operation. However, platen presses require local lighting and a fixture should be mounted over each press.

For existing rotary presses it is sometimes necessary to mount a single 40 w. daylight fluorescent lamp in a concentrating reflector under the feed board to direct light upon the rolls.

Adequate Wiring Is Necessary

One of the most important considerations in changing from an incandescent to a fluorescent lighting system is the existing lighting circuit. Is the plant supplied with direct or alternating current? Fluorescent lamps were designed to operate on alternating current and are not recommended for use on direct current. Operation with d.c. will reduce their life and decrease their over-all efficiency to about 80% of the rated values. For trouble-free performance, efficiency and long life, a.c. is recommended and preferred.

The higher levels of illumination necessary for modern printing operations require adequate wiring to carry the load and in some cases it may be necessary to make a preliminary survey of all the lighting circuits to determine the maximum connected load per circuit. The accompanying table 2, is useful in determining the maximum number of fluorescent lamps per circuit.

Except in extreme cases, however, it is reasonable to assume that if the wiring capacity is adequate for the present lighting system it will be satisfactory for a fluorescent lighting system. The total connected load of fluorescent lighting will approximately equal that of the old system and produce about three times the level of illumination.

Maintenance of Illumination

Unless a planned schedule of maintenance is employed, dust and dirt collecting on the lighting equipment and the walls and ceilings will greatly reduce the efficiency of any lighting system. It is suggested that the lighting equipment be thoroughly cleaned at least twice a year with soap and warm water. A group replacement of lamps is also recommended to aid the maintenance factor. Lamps that have burned until their efficiency has been greatly decreased waste current and increase power costs.

TABLE 2—MAXIMUM NUMBER OF FLUORESCENT LAMPS PER CIRCUIT

Lamp Size and Ballast Type	Ballast Watts	Line Amps	No. 14 Wire[4]		No. 12 Wire[4]		No. 10 Wire[4]	
			Max. No. Lamps Allowed by Code [3]	Max. No. Lamps 2% Drop	Max. No. Lamps Allowed by Code [3]	Max. No. Lamps 2% Drop	Max. No. Lamps Allowed by Code [3]	Max. No. Lamps 2% drop
H. P. F.[2]—Single Ballast								
15 Watt	4.5	.18	83	46	110	74	139	121
20 Watt	4.5	.23	65	36	87	58	108	94
30 Watt	10.0	.37	40	22	54	36	68	59
40 Watt	13.0	.50	30	17	40	27	50	42
Two-Lamp Ballast								
15 Watt	9	.35	86	48	114	76	142	120
20 Watt	9	.43	70	40	94	62	116	100
30 Watt	14.5	.66	46	26	60	40	76	64
40 Watt	17.5	.86	34	20	46	32	58	48
100 Watt	35.0	2.05	14	8	20	14	24	20

[2] High Power Factor [3] 1940 N. E. Code [4] Length of Run ± 50 ft.

Solid Cover Plate Discarded

TO comply with anticipated wishes of WPB's Printing and Publishing Branch, we have eliminated the solid color plate in our new cover design, first used in the September issue of *Printing Equipment Engineer*. Other conservation measures in the interests of war economy may be put into effect by this magazine as the need for them becomes apparent.

A warning to publication executives as to possible future mandatory action by WPB was voiced by Deputy Chief E. W. Palmer of the Printing and Publishing Branch in his recent Des Moines speech. This warning had reference to immediate voluntary curtailment of new uses of multi-color printing in publications, particularly the employment of lavish bleed-type illustrations, and the also extravagant expanse of color so prevalent in newspaper supplements, magazines, books and commercial advertising. The urge behind the warning is that "the continuing and increasing shortage of copper and zinc to meet the requirements of the war industries forecasts a probable and immediate further curtailment in the consumption of these metals in the engraving industries," stated Mr. Palmer.

While all those associated with the Graphic Arts believe in the continuing expansion of the use of color in all kinds of printing, by whatever process, we feel that the least the industry can do in the present emergency is to comply with the wishes of WPB on a voluntary basis to speed the war effort. After the war—well, let's go to town with a riot of color. Meanwhile, it should not be said that the printing industry has been guilty of impeding the war effort in any manner.

Coronado
•The exotic charm of Old Mexico's design and vivid coloration—
•The sturdy craftsmanship of the efficient U. S. A.
$59.95. For This Bar:
Buy on Colonial's E-X-T-E-N-D-E-D T-E-R-M-S
Colonial
FURNITURE CO.
MERIDIAN AT MARYLAND

WHILE there may be nothing new in the use of a highlighted black plate in connection with color printing in commercial work, yet its use in newspaper color printing is uncommon. The use of a highlighted black plate in this particular type of color printing may be the answer to future r.o.p. color printing, where realism in the appearance of the objects to be reproduced is desired. Shown in miniature here, is a reproduction of a 6 col. by 15 in. advertisement printed some time ago in the Indianapolis *Star*. The reproduction, of course, cannot convey the true appearance of the advertisement, but it will give some idea of the excellent craftsmanship used in making the red, yellow, blue and black original plates, the stereotype plates and in the actual printing operation. Tan is the predominating color, being used for the wooden parts of the furniture. Red, blue and yellow were used for the fabrics and for the decorative trimming of the various pieces. A solid red 8 pt. border surrounds the advertisement.

As is stated above, the black plate was a highlighted plate, the use of which permitted the colors in the highlighted areas to show with brilliance. In ordinary four color process plates, the colors are less brilliant because they are dulled and darkened by the black dots that print over the colors.

In the instance of this advertisement, the "Mexican motif" demanded that the colors be as brilliant as possible. In discussing the advertisement with Production Manager Lester Yeager, he remarked: "This advertisement was prepared just like a pressman would like to see it prepared—he is given a chance to accomplish something with the colors."

Two Important Publications

Two new War Control handbooks—one digesting all price and priority regulations now in effect, and the other summarizing the controls on imports and exports—have just been published by the *N. Y. Journal of Commerce*.

Every OPA price ceiling or rationing order and every WPB "L", "M" and "P" regulation is covered in the compact 32-page "War Controls Guide". Industries and commodities are listed alphabetically along with a brief digest of the various OPA and WPB regulations and amendments affecting each item. Over 2100 individual rulings have been edited, weeded out and indexed in the effort to present a quick, authoritative overall picture of existing War Controls.

The new "Import-Export Control Index" lists all existing controls in imports and exports along with the shipping priority rating and licensing symbols assigned to the various commodities.

Copies of either of these two handbooks may be had at 25 cents each from the *N. Y. Journal of Commerce*, 63 Park Row, New York, N. Y.

Loose Leaf Books and Fixtures

Under Order No. L-188, issued on August 3, the War Production Board curtailed use of iron and steel in making loose leaf books (such as notebooks, post type binders, ring binders and ledgers) to 30% of the amount used in 1941, and further provided that during any calendar quarter not more than one-quarter of the 30% allowed is used. Manufacture of certain specified types of loose leaf books is prohibited.

Award for

HIGH ACHIEVEMENT

The 2872 Linotype men and women are deeply appreciative of the award of the Army-Navy "E" Flag for "high achievement in the production of war equipment" made to Linotype.

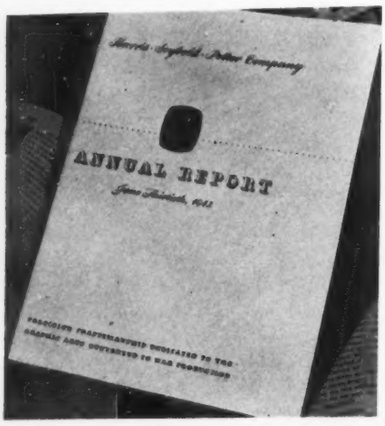
Toward the continuous flow of fighting equipment—meeting ever increasing Government demands; toward the continuing needs of Printing and Publishing to carry on with operating conditions that must inevitably become more difficult; for the fighting fronts both abroad and at home; Linotype's entire resources, its personnel and its experience are gladly committed.

From the official notification sent to President J. T. Mackey: "The high practical patriotism of the men and women of the Mergenthaler Linotype Company is inspiring and heartening. Their record will be difficult to surpass, yet the Army and Navy have every confidence that it was made only to be broken!"

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

TRADE LINOTYPE MARK

Set in Linotype Granjon and Granjon Bold Series



Miniature reproduction of Harris-Seybold-Potter Co.'s Annual Report submitted to the stockholders and employees by Chairman of the Board A. F. Harris. The Report is printed by four-color process offset-lithography.

Annual Report a Demonstration

PUBLISHED with two purposes in mind, the 1942 Annual Report of the Harris-Seybold-Potter Co., has been produced in de luxe form. It consists of 20 pages and cover, is printed by four-color process offset, and is 8½ in. by 11 in. size.

The first purpose to be served, of course, is to present the company's annual statement to stockholders and other people who might be interested. The extensive use of color illustrations and charts tend to make annual reports attractive and interesting to the individual who is ordinarily not concerned with financial matters.

The second purpose to be served is to demonstrate that this class of printing can be greatly expanded by industry in general. The Harris-Seybold-Potter Company feels that under wartime conditions the explanatory type of report meets a definite wartime need, since it contributes to the war effort by providing frank discussion of American business enterprise at war.

In preparing the Report, many of the Nation's wartime posters were chosen to be reproduced in full color as the decorative motif; another reason for selecting the poster motif is that the company wished to show the contribution of a peacetime industry (the offset-lith printers) to the war effort.

Art work for the HSP 1942 Annual Report was executed by Herbert Bielefeld, Inc., Chicago; typography by Ryder, Chicago; plates were made by Rightmire-Berg Co., Inc., Chicago; and the offset-lithography was done by H. J. Schultz Lithographing Co., Chicago.

Red Cross Slogan for March Calendar

SECRETARY W. Floyd Maxwell of the Lithographers' National Association received recently from Chairman Norman H. Davis of the American Red Cross a request that Mr. Maxwell in turn pass on to the printing industry the idea that all calendar manufacturers, printers and buyers of calendars place one of several slogans on the March leaf of each of the coming year's calendar.

President Roosevelt has designated March as Red Cross month at which time the Red Cross will conduct its Red Cross War Fund Campaign. The war has caused the Red Cross to expand its services a thousandfold and the demands are growing greater each day. Placing the slogans on the March leaf, Mr. Davis feels, will be of invaluable assistance in raising these funds.

Suggested slogans submitted by Mr. Davis are as follows:

March Your Dollars to the Red Cross

Remember Your Red Cross This March

March is Red Cross Month

Give to the Red Cross War Fund

Recent War Production Board Rulings

COMPLETE denial of rations of fuel oil for heating in apartment houses, and commercial, industrial and institutional establishments which possess the facilities to convert their furnaces to coal, was announced on Sept. 20 by Paul M. O'Leary, deputy OPA administrator in charge of rationing.

Mr. O'Leary said that a large proportion of buildings, all heavy users of fuel oil, including apartment houses, office buildings and manufacturing plants, have furnaces that can be easily converted to coal. "The desperateness of the fuel oil situation demands that they do so," he said.

"The Government has carefully cleared the way for conversions and arrangements have been made for priorities on materials and the manufacture of lugs, shaker bars, grates and ashpit doors. In fact, many of these things are now made, waiting to be used.

"No person should be permitted to make inroads on our precious stock of fuel oil and thereby increase the discomfort of people who cannot convert. Every person who can do so at a moderate sacrifice should take his fuel oil consumption off the market entirely, and thus relieve the suffering of other people."

Mr. O'Leary said that commercial, industrial and institutional establishments will be required to report on the convertibility of their oil furnaces when they register for rations of fuel oil. Rationing boards, it was pointed out, will have the benefit of advice from heating experts in determining if such establishments should be denied rations.

In no event, whether it be a private home or a large manufacturing plant, will any establishment be eligible for a fuel oil ration if a new oil burner or equipment converting the furnace from other fuels to fuel oil has been installed since June 1, 1942.

Fuel Oil—Amdt. No. 3 to Lim. Order L-56 as Amended

A release issued by OPA (No. 785), dated Sept. 23, sets up Area 4 in which the fuel rationing order is in effect. This Area 4 comprises four zones, as follows: Zone A—Maine, New Hampshire, Vermont, 15 counties in northern New York, Zone B—Michigan, Wisconsin, Minnesota, N. Dakota and S. Dakota, and 19 counties in Northern Iowa. Zone B consists of Massachusetts, Rhode Island, Connecticut, New York (except 15 northern counties in Zone A, New Jersey, Pennsylvania, the approx. northern ¾ of Ohio, the northern sections of Indiana and Illinois, Iowa (except counties in northern part listed in Zone A), Northern section of Missouri, Nebraska and the northern section of Kansas. Zone C—Consists of the states of Delaware, Maryland, D. of C., Virginia, W. Virginia and Kentucky, and those parts of Ohio, Indiana, Illinois, Missouri and Kansas not included in Zone B. Zone D consists of North and South Carolina, Georgia and Florida (east of the Appalachicola river).

In a recent ANPA Bulletin it is stated that: "Subparagraph (c) (6) of the order states that the provisions outlined above 'shall not apply to, and shall not limit, the quantity of deliveries of fuel oil for use in the operation of equipment used in connection with agricultural or industrial processes, or research operations requiring temperature control.' This apparently means that the use of fuel oil for heating stereotype metal pots is not restricted and is not subject to the rationing order."

Lamp Variety Limited

ORDER L-28-a, issued on September 17 by WPB, limits the variety of incandescent, fluorescent and glow discharge electric lamps manufactured without curtailment of total production. Those particular sizes and types of lamps which are not now permitted to be made will be offset by the manufacture of the permitted types. In the Order, a glow discharge lamp is construed to be any hermetically sealed electric discharge lamp or tube, other than a fluorescent lamp, containing gasses or vapors and which is designed to operate at impressed voltages of less than 1000 volts to produce visible light. The common types of incandescent lamps will be made only in

Built by
WOOD NEWSPAPER
MACHINERY CORPORATION
... "and dedicated to
the proposition that"
The Axis
"Congress shall make no
law respecting an establishment
of religion, or prohibiting the free
exercise thereof; or abridging the
freedom of speech or of the press;"

115, 120 and 125 voltages. The 50 w. and 75 w. lamps have been eliminated. Lamp colors aside from standard type, are restricted to red, blue and green. A considerable number of special and fancy shapes have been eliminated.

Preference Rating Raised to A-1-c or Higher

THE preference rating necessary to obtain certain types of general industrial equipment covered by Limitation Order L-123 is raised from A-9 or higher to A-1-c or higher, except for Army, Navy and certain other exempted transactions, by Amendment No. 1, issued on August 27 by the Director General for Operations.

The new rating requirement, however, does not apply to the production and delivery, prior to October 1, 1942, of equipment to fill an order accepted prior to August 27 which has an A-9 or higher rating.

The amendment also makes minor changes in the definition of some of the types of equipment listed in the order, so that electric motors and controls for farm use, which already are covered by the farm equipment limitation order (L-26), will not be affected by the terms of L-123. Two-wheel hand trucks with a retail sale price not in excess of $10 also are excluded.

L-123 covers many types of general industrial equipment, such as passenger and freight elevators, fans, compressors, pumps and other equipment designed for industrial use.

Urges Use of WPB Regional and Field Offices

IN release WPB-1888, the War Production Board urges those wishing to obtain information from WPB to apply to their regional or field office before making a trip to Washington. In the release it is stated there are 12 regional and 127 field offices scattered throughout the country. These were established to save business men the trouble of coming to Washington and to prevent an overload of work in Washington. The release also points out that usually quicker action can be obtained in the field than by coming to Washington.

Package Wire Warning

MANUFACTURERS of folding and set-up boxes were warned Sept. 14 by the Containers Branch of WPB that preference ratings for steel stitching wire in packages will not be granted except for the most essential uses. Franklin R. Kelly, Acting Chief of the Folding and Set-Up Box Section, urged manufacturers to eliminate metal stitching wire wherever possible. He pointed out that glues and paper corner-locks in many cases can be effectively substituted for the metal stitching wire. The wire normally is used as a heavy metal staple in light-weight paperboard boxes.

Certain Printing Inks May Not Be Shipped in Drums

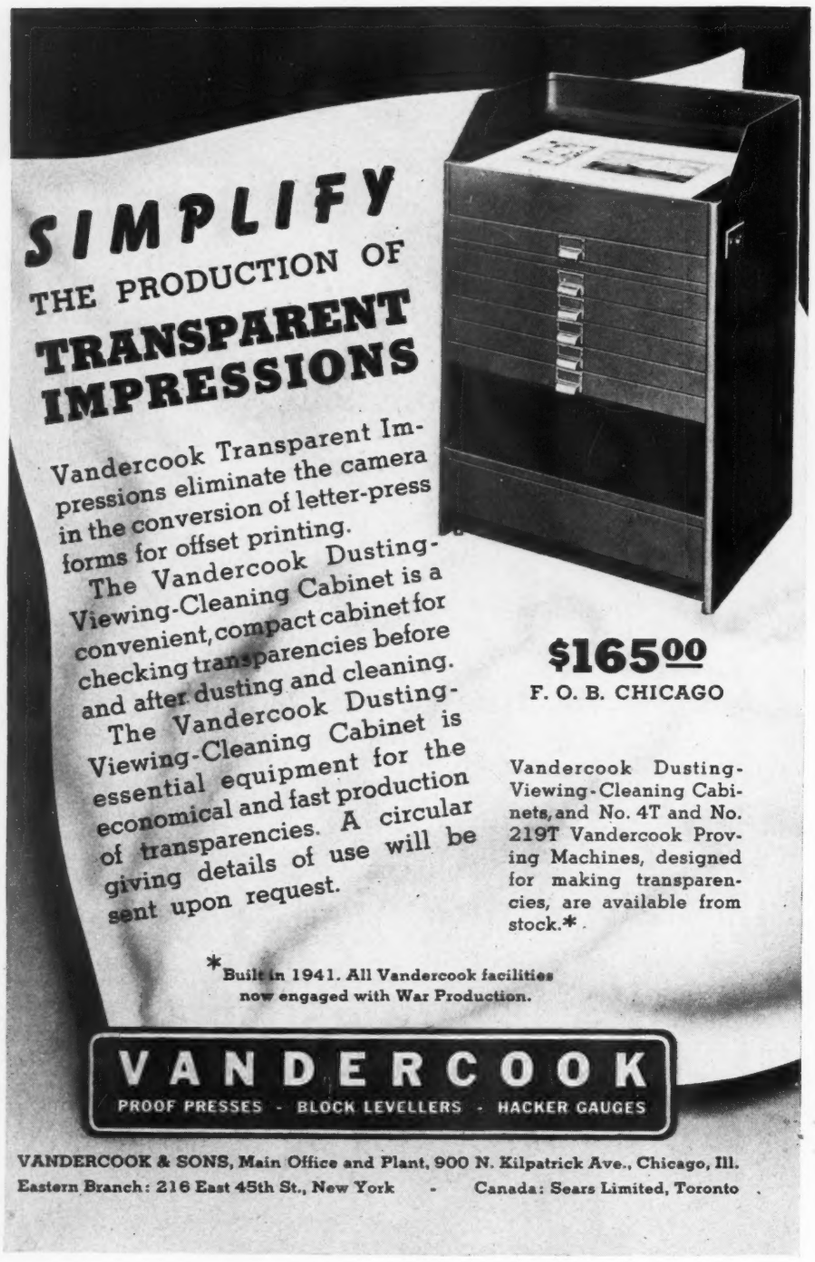
THE use of new or second hand steel shipping drums for packing approximately 200 food, chemical and petroleum products after 60 days from Sept. 14 has been prohibited by the War Production Board in Limitation Order L-197.

Officials of the Containers Branch said that the order is expected to conserve approximately 100,000 tons of steel annually, and release thousands of drums for essential purposes. Most products barred from the use of steel drums are expected to be shifted to tight cooperage (barrels) and in some cases, to fibre containers and glass containers.

Among products which cannot be packed in steel drums after Sept. 14, if the drums are not now owned by the packer, are asphalt, floor wax, animal, fish, and vegetable oils and printing inks (except aniline or spirit inks and rotogravure inks).

In order to distinguish between drums owned by the packer, and drums made or sold after Sept. 14, the order requires that all drums manufactured, purchased, or delivered after Sept. 14 be plainly marked on the bottom plate with a letter "X".

The restrictions of the order do not apply to persons having less than 5 drums in use for all purposes, or to drums used for the sale and delivery of commodities to the Army and Navy and certain other designated Government agencies.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PRINTING PATENTS REPORT

Covering Patents Issued August 25, September 1, September 8, September 15, September 22

This data is compiled exclusively for *Printing Equipment Engineer* by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c each (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Invention, Inc., Moves

Raymond E. Jager, Manager of Invention, Inc., which has been furnishing the monthly patent report appearing in *Printing Equipment Engineer* for several years, announces that effective September 25, the address of his company's offices will be in the Munsey Bldg., Washington, D. C.

This is a well known address in Washington. The Munsey Building is located at 1329 "E" Street, N. W., across famous Pennsylvania Avenue and Post Square from the U. S. Patent Office. Invention, Inc. will be as close to the U. S. Patent Office as it is possible to get—for as prompt service to clients, when required, as it is possible to give.

The company's telephone address remains the same as before—EXecutive 7024.

Binding, Cutting, Perforating:

2,294,522. PASTING MECHANISM of the type employed to paste together printed collected sections with a back-to-back joint along their folded edges. A semi-circular pasting plate or disc is provided which rotates through the paste trough to pick up paste. The leading radius-edge of the revolving plate is sufficiently thin to spread apart and pass between two springy metal wiping blades which wipe clean the sides of the plate emerging from the paste trough. Further, a block adjacent the periphery of the revolving plate may be adjusted towards and away from the plate to regulate the thickness of the paste to be applied to the paper web. Advantages include the fact that the whole of the rotating pasting member, excepting its periphery, is kept clear of paste and no reciprocatory motion is required of the wiping blades. Invented by George Turrall, London, England. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application October 30, 1940. 14 claims.

2,295,073. COLLATING MACHINE which is fed from its integral feeding means described in patent 2,295,055 included in this report under "Feeding, Folding and Delivery". From the feeding means there described, the top sheet of each stack is deposited on parallel downwardly sloping wires which are supported at one end only. While on these wires the sheet may be perforated by apparatus for the purpose. Pins on a moving endless chain push the sheet along and off the ends of these parallel wires on to the top of whatever other sheets may have been similarly collected and are being pushed by the same pins along other and longer parallel wires which are stretched taut below the sets of loose-end parallel wires. The loose-end wires which serve as sheet depositing stations, may be as numerous as desired. Thereby any number of different sheets may be superimposed onto a pile of sheets being collated. Invented by Frank H. Blythe, Lakewood, and Leonard W. Kutler, Jr., Wickliffe, Ohio. Assigned to Colators, Inc., Painesville, Ohio. Application March 30, 1940. 20 claims.

Composing Room Equipment:

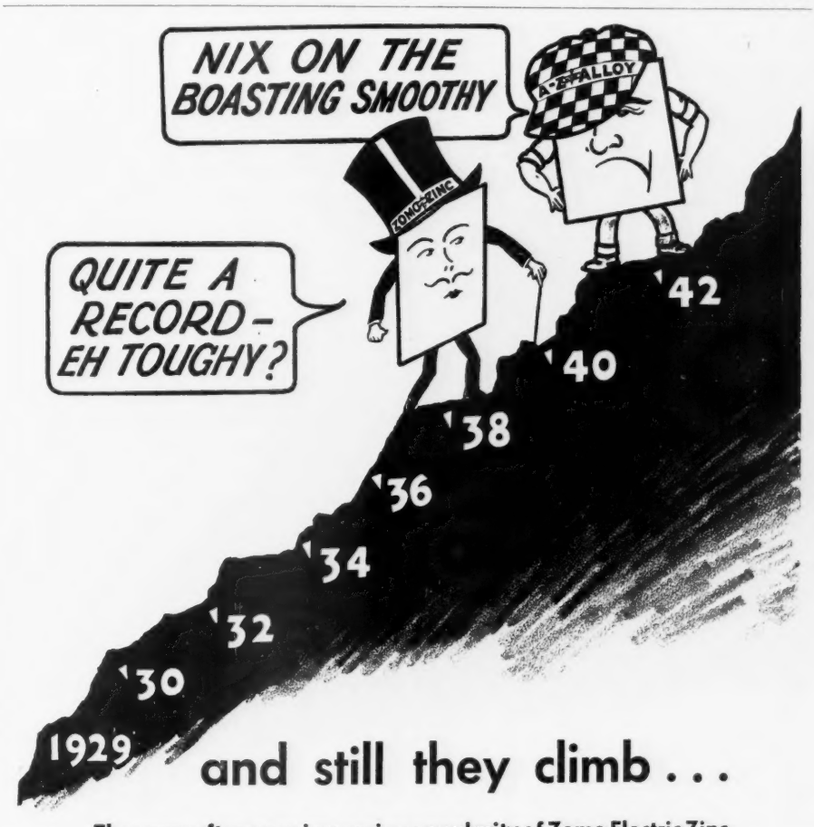
2,294,385. COMPOSING MACHINE of the type which perforates permutably arranged groups of holes in a paper strip, the groups of holes constituting code signals for controlling the operation of a line casting, type casting or other typographic machine. In order to enable the operator of the perforator to determine the point at which a line should be terminated so that it can be justified, a line register is provided for totalizing and indicating the cumulative width of the characters and spaces as the signals representing them are perforated in the tape. The register must be driven variably and a part is incorporated in the machine which is moved variably in steps of accurate amplitude under control of the various keys actuated to perforate the character signals in the control tape. Invented by Howard D. Colman, Rockford, Ill. Assigned to Barber-Colman Co., Rockford, Ill. Application September 23, 1939. 77 claims.

2,294,978. ROTARY COMPOSING ROOM SAW of the type used to trim blocks of lead or lead composition, and which embodies a feature which causes the particles of sawed metal not to fly off dangerously as heretofore. Essentially, this feature is simply a small hole in the saw table connecting with, and at the extremity of, the saw blade slot at the end where the teeth of the rotating blade pass from above to below the table's surface. By means of this hole, the metal particles pass through the table with the blade instead of bounding off the surface. Invented by Louis J. Gilg, Milwaukee, Wis. Assigned to The Journal Co., Milwaukee, Wis. Application July 14, 1941. 6 claims.

Feeding, Folding and Delivery:

2,294,406. SHEET HANDLING MECHANISM for delivering sheets singly from a pile to a position in which they are accurately registered relatively to the cylinder of a press. The object of the invention is to avoid reciprocating parts to a large degree, thus permitting high speed operation without any objectionable stress, shock or vibration. To accomplish this, endless belts are employed for advancing sheets successively. The belts travel over a suitably formed table or other support and vacuum means are provided for progressively holding a sheet in contact with the travelling belts. The application of vacuum to the sheet at each point in its path of travel is controlled automatically to insure the desired movement without crumpling or other injury to the sheet. Invented by Samuel A. Huffman, Avalon, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Original application March 31, 1938. Divided and this application September 9, 1939. 26 claims.

(*Continued on Next Page*)



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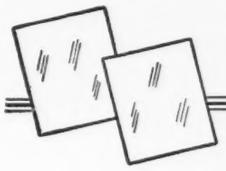

ZOMO ELECTRIC ZINC

A-Z ELECTRIC ALLOY

2,294,407. TRAVELLING VACUUM BELT for delivering sheets successively from a printing machine to a pile support for stacking. The construction of the sheet handling mechanism itself is described in patent 2,294,406 (above), the chief difference in the patents being in the construction with regard to the application to which this mechanism is put. Invented by Samuel A. Huffman, Avalon, Pa. Assigned to Miller Printing Machinery Co. Application October 13, 1939. 4 claims.

2,294,649. METHOD AND APPARATUS FOR FEEDING AND SEPARATING SHEETS in order to segregate sheets that are without defects from defective sheets, thus insuring that the sheets supplied to various customers will meet the required standards for different classes of printed or other products. Method of the invention comprises forming and advancing in a continuous manner and with slow movement, a stream of lapped sheets, separating the sheets successively from the front of the stream, advancing for further handling thereof separated sheets for this purpose while in the stream and deflecting out of the line of travel of the separated sheets any sheet selected for this purpose, while in the stream. Novel sheet advancing, guiding and switch means are provided for removing or deflecting imperfect sheets out of the line of travel of the good sheets. Invented by Leonard Baker, Hillsdale, N. J. Assigned to Dexter Folder Co., Pearl River, N. Y. Application July 26, 1940. 40 claims.

2,294,980. MECHANISM FOR REGISTERING RELATIVELY STIFF SHEETS, such as cardboard, metal, etc., being fed to a printing machine. The mechanism utilizes rollers which, as a sheet is passing between them, are moved by a spring toward and against the adjacent side edge of the sheet, thus registering the sheet sidewise with respect to one edge regardless of slight variations in the width of other sheets being fed. Further, the mechanism may be quickly adapted for sheets of considerable difference in length, by moving the rollers towards or away from the printing cylinder. Invented by Morris S. Gudger, New York, and Edwin W. Goodwin, New Rochelle, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application January 7, 1942. 20 claims.

2,295,055. APPARATUS FOR FEEDING SHEETS FROM A PLURALITY OF STACKS to collating means described in patent 2,295,073, included in this report under "Binding, Cutting, Perforating". Sheet holding tables of the apparatus are automatically elevated by motors when the level of the stack of sheets on the table falls below a predetermined point. Sheet-feeding arms, one over each stack, are equipped with suction tips and means for creating and breaking suction. One or more of the sheet-feeders may be selectively discontinued to keep certain sheets out of the collation process. In the event that no sheets are fed from a table, or more than one sheet is fed, operation of the entire collating machine is automatically stopped. This is accomplished by having each sheet pass between the contacts of a switch, so as to insulate the contacts from each other. Connection of the contacts, when no sheet separates them, serves to ground the current and deenergize the motor. On the other hand, the thickness of more than a single sheet causes depression of the switch and similar deenergizing of the motor and stopping of the collating machine. Invented by William C. Rupp, Parma, Leonard W. Kuttler, Jr., Wickliffe, and Lawrence R. Johnson, Cleveland, Ohio. Assigned to Colators, Inc., Painesville, Ohio. Application October 7, 1940. 8 claims.

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Miscellaneous:

2,294,246. MANUFACTURE OF PRINTING PASTES FOR TEXTILES, wherein water-solubilized derivatives of insoluble dyes are used as the dyestuff ingredient, the solubilizing groups being acyl groups of a kind which can be hydrolyzed off by chemical reagents after the dyestuff derivative is applied to the fabric, thereby regenerating the insoluble dye and producing an insoluble dyeing. EXAMPLE: Cotton cloth may be printed from an engraved roller, with a paste having the following composition: 6 parts of the product prepared by the action of benzoic-acid-m-sulfon chloride on the azo dye obtained by coupling diazotized 2-amino-4-chlorodiphenyl ether to the anilide of 2-hydroxy-3-naphthoic acid; 9 parts of glycerol-monoglycolic acid ester; 29 parts of water; 50 parts of starch-tragacanth thickening; 6 parts of 20% trisodium-phosphate solution. The strength and brilliancy of the prints is obtained without the use of compounds having unpleasant odor, undesirable instability and other disadvantages. Invented by Lester E. Schniepp and Wilber O. Teeters, Wilmington, Del. Assigned to E. I. duPont de Nemours & Co., Wilmington, Del. Application September 24, 1940. 8 claims.

2,294,287. COBALT RESINATE AND METHOD OF MAKING IT. It has been found that by carrying out the fusion with hydrogenated rosin, in place of ordinary rosin, a clear homogenous resinate may be prepared without the blocking disadvantage encountered in the production of cobalt resinates for ordinary rosins. Thus, cobalt resinates containing more than the theoretical combining proportion of cobalt based on the acidity of rosin and up to about twice the theoretical cobalt content of cobalt di-resinates, are made available. Products of the invention are useful as driers in varnishes and in the manufacture of printing inks. Invented by Herschel A. Elliott, Wilmington, Del. Assigned to Hercules Powder Co., Wilmington, Del. Application September 4, 1941. 11 claims.

2,294,306. MANUFACTURE OF IMPROVED YELLOW PIGMENTS AND LAKES which have sufficient transparency and tinting strength to enable them to be used in printing inks for multicolor printing. The pigment is prepared by coupling tetrazotized 3.3′ dichlor-benzedine with 2 mole equivalents of acetoacetanilide in a medium which is slightly acid to litmus and the transparency is obtained by a heat treatment of the precipitated color before it is isolated from the medium in which it is formed. Invented by Joseph W. Lang, Woodstown, N. J. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application March 5, 1940. 7 claims.

2,294,342. PRODUCTION OF SPECIAL LETTERING in condensed or extended or curved lines, similarly as would normally have to be done by a lettering artist, but which is created in the present invention by regular set type the proof of which is pulled on a blanket of rubber or other elastic material. The blanket is in the form of a short endless belt adjustably mounted in a notched frame. By stretching the blanket the type impression on it may be modified as desired. Invented by Edward J. O'Leary, Chicago, Ill. Unassigned. Application August 17, 1939. 6 claims.

2,294,381. TREATMENT OF PIGMENTS with ammonium naphthenate, useful in the manufacture of printing inks. EXAMPLE: 1150 parts of a paste of copper phthalocyanine is reslurried with about 3000 parts of water, and 5 parts of ammonium naphthenate is added. The mixture is then given three passes through a colloid mill and dried on trays in an oven. The very fluffy powder gives an ink with lithographic varnish, which exhibits a grit rating of 19, as compared to 15 for an untreated control. Invented by Harold E. Burdick, Huntington, W. Va. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application August 5, 1940. 4 claims.

2,294,394. MANUFACTURE OF DRY PIGMENTS with greatly improved texture and ease of dispersion in organic vehicles. EXAMPLE: 1500 parts of Milori Blue slurry, obtained by reacting a solution of ferrous sulphate and ammonium sulfate with a solution of sodium ferrocyanide and subsequently oxidized in the usual manner and containing about 60 parts of dry pigment, is mixed with 4.2 parts of ethyl naphthenate and stirred overnight at room temperature. It is then filtered, washed repeatedly with warm water and dried in an oven. The dry pigment is ground in lithographic varnish on a loosely set ink mill. When examined for grit, the rating was 15 as compared to 13 for an untreated control. Invented by Archibald M. Erskine, Chatham, and Ben H. Perkins, Sea Bright, N. J. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application August 3, 1940. 19 claims.

2,294,465. PRINTED ARTICLE for advertising or like purpose to show inner construction of a pictured article. Printing of two pictures is done on a transparent or translucent sheet folded to superimpose the two pictures. Each layer is backed with an opaque coating such as ink containing aluminum powder. Invented by Richard Lasker, Jackson Heights, N. Y. Assigned to Milprint, Inc., Milwaukee, Wis. Application May 20, 1941. 4 claims.

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2,296,382. METHOD OF OBTAINING SATISFACTORY DISPERSION of diazo pigment dyestuffs in water immiscible organic film-forming vehicles, by removal of water from a pigment pulp, followed by dispersion in the presence of a polar organic liquid. EXAMPLE: 20 parts of dry blue pigment, prepared by coppering the coupling of tetrazotized dianiside with 2-naphthol-6-sulfonic acid, are stirred in a dough mixer with 10 parts of ethylene glycol, until the mixture is uniform. To this mixture is then added 70 parts of a lithographic linseed oil varnish of viscosity No. 3. Mixing for one hour suffices to incorporate all the ingredients into a uniform paste which may then be ground in the usual way. The product obtained is suitable for use in formulating printing inks either as full strength inks or in smaller quantities for purposes of toning. Invented by Earl K. Fischer, Long Island City, Eugene G. Gluck, Jackson Heights, and William B. Reynolds, Elmhurst, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application August 16, 1940. 5 claims.

2,296,383. METHOD OF DISPERSING HYDROPHILIC PIGMENTS based on the discovery that diazo pigment dyestuffs can be successfully used to pigment water immiscible organic film forming compositions, with full utilization of the full color strength of the dyestuff, by malaxating the aqueous pigment pulp, in the form of a filter press cake, with an organic plastic on an open malaxating mill, whereby the water is evaporated while the malaxation is taking place. Under such conditions, the pigment dyestuff transfers to the plastic medium without loss of strength and the pigmented plastic can then be dissolved to form a liquid coating composition, printing ink or the like. Invented by David M. Gans, Bronx, N. Y. Assigned to Interchemical Corp., New York, N. Y. Application January 16, 1940. 5 claims.

DESIGN 133,544. ORNAMENTAL DESIGN for a font of Hebraic type. Invented by Isaac Schild, Brooklyn, N. Y. Unassigned. Application November 26, 1941.

Plate Making:

2,294,319. METHOD OF UNITING METALS such as lead and copper in the manufacture of electrotypes, whereby many intermediate steps, such as acid dipping, washing, zinc chloride coating, tinfoil covering, etc., are entirely eliminated. The shorter method depends on use of a solution of stannous chloride and hydrochloric acid. The solution may be of 5 ounces of full-strength acid to one gallon of water to which is added about 6¾ ounces of stannous chloride crystals. The copper electroplating shell is heated to 700°F. and this solution is applied to its back. When the solution has turned brown on the warm copper, molten lead may be poured on and the lead is said to adhere firmly to the copper. Invented by Eignar Ringquist, Worcester, Mass. Unassigned. Application April 21, 1941. 2 claims.

2,294,429. TEXTILE PRINTING PROCESS and apparatus therefor, which depends on a special printing plate or cylinder. The outer surface of the cylinder is formed of a doughy mass consisting of a water soluble material combined with coloring composition either in the form of a pigment or dye, a hygroscopic agent, and a dispersing or emulsifying agent. When moistened, the cylinder becomes sufficiently plastic that its imprint-design of color is picked up by contact. With this object the fabric to be printed is moistened and passed over the cylinder by means of a carrier or presser belt which presses the fabric downwardly upon the cylinder's imprinting surface. Invented by Robert Stutz, Arlington, N. J. Assigned to S. T. and S. Holding Co., Inc., New York, N. Y. Application June 18, 1940. 6 claims.

2,294,456. METHOD OF PROVIDING SPACED HOLES in a flexible printing plate made of rubber or the like, so that the plate may receive positioning pins for properly positioning the plate on a printing roll to insure proper registration between the several plates on a single printing roll or on a number of such rolls, as in a multi-color press. In making up the original metal plate from which the flexible printing plate is to be reproduced, the engraver provides lugs or bosses along opposite margins of the plate, preferably on the center line of the engraved design. When a matrix is formed from the engraved metal plate, the lugs or bosses are reproduced as depressions or recesses which are again reproduced in the flexible printing plate as lugs or bosses. The lugs or bosses are then punched out to provide holes for receiving the positioning pins. The method of attaching the plate to the printing rolls by the pins is described in patent 2,231,187, which was a co-pending application of this patent. Invented by John F. Hawley, Riverside, Ill. Unassigned. Application September 30, 1940. 3 claims.

2,294,643. METHOD OF MAKING PRINTED REPRODUCTIONS OF CONTINUOUS-TONE ORIGINAL PICTURES in which the tones of the original are faithfully represented. Invention is based in part, on the observation that the difficulties which arise in etching and printing very small dots, depend not upon the small area of each dot, but upon its shorter dimension. Invention claims to overcome the limitations of half-tone plates and those of "Hardy" plates, by providing variably spaced dots and providing for a variation in both dimensions of the dot, so that the dots are of approximately uniform shape and the smallest dots may have their two dimensions substantially equal. At the same time, they are spaced further apart than the larger dots. In this way, it is said that very light tones may be represented by means of dots which may be uniformly etched and printed. The claims of this patent are concerned primarily with the method of making the reproductions described. (See following two patents for apparatus used.) Invented by Francis Lewis Wurzburg, Jr., New York, N. Y. Assigned to Interchemical Corp., New York, N. Y. Application July 5, 1940. 11 claims.

2,294,644. CONTRAST IMAGES for making printing plates in carrying out the method described in patent 2,294,643, above. The contrast images are made by using part of a photo-cell current which varies with the tone of the original picture to control the length and the spacing of dark areas of the reproduction, and at the same time, using another part of the photo-cell current to control the width of the dark areas of the reproduction in such a way that the width of the dark areas which are short and widely spaced, is made less than that of those dark areas which are long and closely spaced. Invented by Francis Lewis Wurzburg, Jr., New York, N. Y. Assigned to Interchemical Corp., New York, N. Y. Original application July 5, 1940. Divided and this application August 9, 1941. 4 claims.

2,294,645. PRINTING PLATE made by the method and contrast images described in the two preceding patents, 2,294,643 and 2,294,644, respectively, so that the printing dots are variably spaced, rectangular, and each dot has dimensions of its rectangular area substantially equal, i. e., forming a square. While the invention is concerned mainly with relief printing plates, a feature of narrow parallel ridges in the large indentations (dark areas) of intaglio plates is also provided. Invented by Francis Lewis Wurzburg, Jr., New York, N. Y. Assigned to Interchemical Corp., New York, N. Y. Original Application July 5, 1940. Divided and this application August 9, 1941. 4 claims.

2,294,944. INK REPELLENT PREPARATION for treatment of the non-printing areas of a lithographic printing plate. The new preparation uses one or more of a desensitizing acid or salt, as for instance chromic acid; ammonium, sodium or potassium bichromate; phosphoric acid; or ammonium, sodium or potassium phosphate; etc., and mesquite gum. The mesquite gum entirely substitutes for the commonly used ingred en , gum arabic, in all three customary uses, viz.: (1) for initially de-sensitizing the non-printing area of the plate before printing, (2) for use in dampening during printing, (3) for protective coating of plates after printing. Compared to gum arabic, mesquite gum is said to be less acid and therefore less corrosive of plates in storage; more quickly dissolved in water, more soluble and less viscous in solution, and therefore less

likely to form scum on the printing plate, emulsify the ink, strip ink from the ink rollers, etc., during running. Invented by William H. Wood, Bedford, Ohio. Assigned to Harris-Seybold-Potter Co., Cleveland, Ohio. Application January 8, 1941. 12 claims.

2,294,981. COLOR CORRECTION METHOD, similar to the masking type, to be used in duplicating a color transparency or print or making color separation negatives therefrom, or in printing a color positive from a color negative. A monochromatic colored light is employed with a selected wave length at which absorption (in density units) of each of the yellow, magenta and blue-green layers in an original, is in proportion to the correction desired in accordance with the amount of the other colors present. Usually no correction is required for yellow, and therefore proportions need usually be adjusted only between the other two color layers. A sensitive sheet in printing relation (i. e. contact or projection printing) with the original and exposed to the colored light, is made into a mask which may thereafter be used in register, with the original for color correction. Invented by Wesley T. Hanson, Jr., Rochester, N. Y. Assigned to Eastman Kodak Co., Rochester, N. Y. Application May 25, 1940. 6 claims.

Printing Presses and Equipment:

2,293,886. MACHINE FOR PRINTING NUMBERS or letters or other markings on a continuously fed paper web, whereon the successive impressions are spaced longitudinally. The present invention provides means for adjusting rotation of the type blocks to a desired speed slower than web travel, yet when each type block is pressed into the web, the latter controls movement of the type block temporarily, i. e., while in that stage. This brings peripheral speed of the type block up to paper web feed, thereby to avoid smudging. Resulting advantage is that the distance between successive imprintings may be altered to fit a particular job and this may be done simply by changing tool speed relative to web feed without substitution of parts in the machine as would be necessary to keep type blocks moving at all times at a speed equal to that of the web. Invented by Hobart W. Bruker, Bordentown, N. J. Assigned to George W. Swift, Jr., Inc., Bordentown, N. J. Application May 5, 1941. 5 claims.

2,294,503. CONTINUOUS WEB-PRINTING MACHINE having a number of improvements in the various units of the machine. One of the improvements relates to a machine having a number of printing units each having a counter pressure drum mounted on the frame of the machine and cooperative with a cylindrical form which is mounted in a casing supporting a furnishing roller and ink supply. Slides are provided for supporting the casings and a mechanism simultaneously moves the slides to separate the counter pressure drums and the cylindrical forms. The slides may be individually moved to disengage the meshing gears on the counter pressure drum and the cylindrical form. Invention also provides a removable oscillating ink pan and novel arrangements of web feeding mechanisms, heating units and web rewinding unit. Invented by Eugene H. Klingelfuss, Brooklyn, N. Y. Assigned to Klingrose Machine Corp., Brooklyn, N. Y. Application October 10, 1941. 9 claims.

2,294,620. SPEED SYNCHRONIZING SYSTEM for the printing roll sections and the folding section of a rotary printing press, comprising a driving motor for each section, a tachometer generator coupled to each driving motor, an asynchronous motor coupled to each section, means interconnecting the rotor circuits of the asynchronous motors, a speed regulator for each driving motor, and means for actuating the speed regulators in response to voltage changes between the tachometer generators and the asynchronous motors, respectively of two sections, whereby the speed regulators are actuated to synchronize the sections. Invented by Carl Kiessling and Aage Garde, Vasteras, Sweden, and Nils J. E. Haglof, Wanstead, London, England. Assigned to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden. Application May 27, 1939. 3 claims.

2,294,879. PLATE MOUNTING which permits quick mounting, make ready and registry of molded rubber printing plates upon a printing cylinder of the slotted type whether or not the cylinder is adapted of itself for printing from rubber plates. The invention makes unnecessary the heavy steel arcuate saddle preformed to correspond with the curvature of the cylinder. Instead, flexible packing sheets and a top sheet, all of non-metallic material, are wound around the printing cylinder, the sheets being secured at one end and wrapped around a hexagonal bar at the other end. The bar which is in the slot of cylinder, below its periphery, has ratchets at one end to permit tensioning the wrapped sheets. The top packing sheet may be scribed with gauge marks, visible through the top sheet which is preferably of hard transparent smooth material to which rubber plates may be stuck on or peeled off. Invented by Harry F. Affelder, Cleveland Heights, Ohio. Unassigned. Application April 24, 1939. 10 claims.

2,295,080. IMPROVED ROTARY INTAGLIO PRINTING PRESS by means of which precision printing may be effected with thermoplastic ink and in as many colors as desired. Invention is based on the discovery that in order to produce effective and precise results when printing with thermoplastic inks, by an intaglio press, it is necessary first to heat the ink with complete uniformity to a predetermined temperature at which it becomes molten in its bath or fountain and then it is necessary to print the ink at a higher temperature. The latter step is effected by uniformly heating the intaglio roller or printing cylinder to a temperature slightly higher than that of the bath or fountain. Invented by William F. Grupe, Lyndhurst, N. J. Assigned by mesne assignments to Interchemical Corp., New York, N. Y. Application December 10, 1938. 15 claims.

2,295,134. METHOD OF ELIMINATING STATIC ELECTRICITY in printing presses of the type wherein packing and draw sheets formed of paper are used, whereby the cylinder becomes electrically insulated, ordinarily causing static electricity to remain with or on the sheets after printing and preventing the sheets from stacking evenly. In the present invention, the packing and draw sheets are fabricated by thoroughly mixing minute particles of metal, such as copper or any other electrically conductive substance with a paper pulp solution, the pulp then being drawn and calendered in the usual manner. By forming packing and draw sheets of the composition described above, any static electricity on the sheets being printed will be conducted through the press cylinder and press frame to the ground. Invented by Ernest O. Smith, Los Angeles, Calif. Unassigned. Application May 10, 1940. 3 claims.

2,295,267. MULTIFORM PRINTING MACHINE using a new type of action whereby a single form of type may be used for making a number of impressions upon a single sheet of paper, while the paper remains on the cylinder. A delayed action of the table of the printing machine relative to the cylinder permits a single form of type to make impressions upon different sections of the paper without taking the paper from the printing cylinder, thereby eliminating feeding of the stock through the press more than once. Invented by Junior A. B. Peak and Frank Kautzman, Salt Lake City, Utah. Unassigned. Application June 29, 1940. 5 claims.

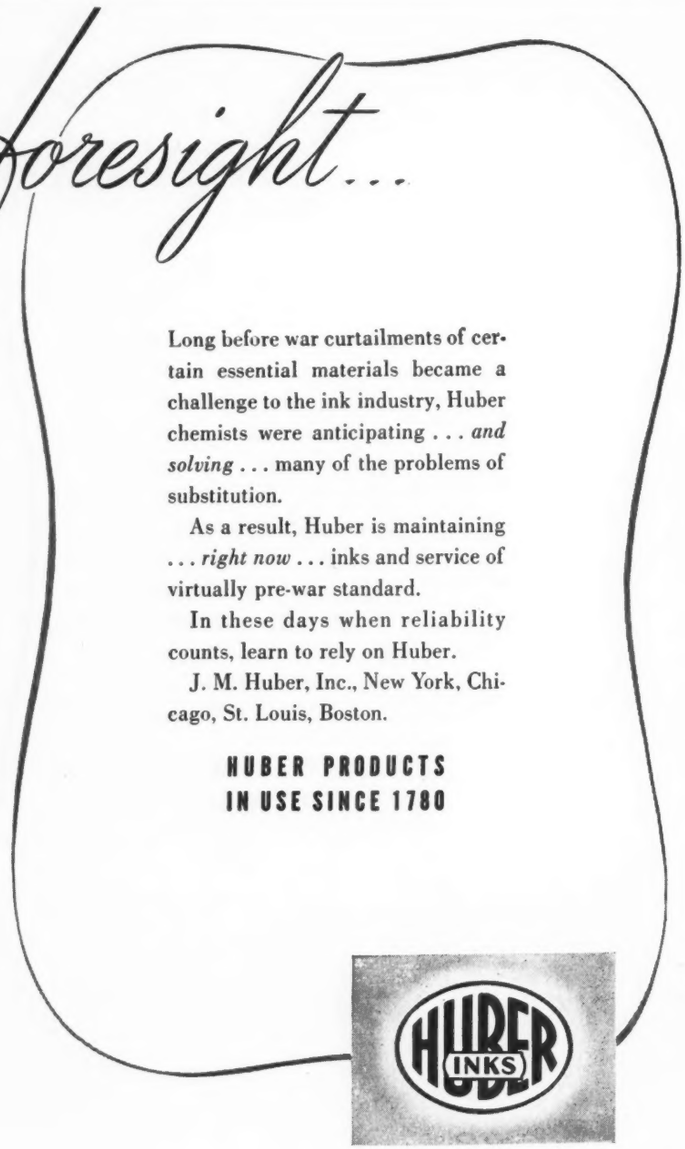
For Patent Research in the U. S Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

TECHNICAL LITERATURE

Production and Mechanical Executives wishing to secure copies of the literature described below may do so by addressing the manufacturer direct, or by sending request to Printing Equipment Engineer. *We'll be glad to pass your request on to the manufacturer. Literature is gratis except where noted.*

Lithographic Ink Coverage

Technical booklet entitled *Lithographic Ink Coverages* by Director of Research George Cramer, has been published by Sinclair & Valentine Co. Subject matter is related to amount of ink required for a certain job. Ink coverage is considered from the lithographer's point of view. Subjects discussed are: Paper Mileage Factors, Smoothness of Coated Stocks, Coated Versus Offset, Paper Penetration, Ink Receptivity, Ink Mileage Factors, Ink Strength, Specific Gravity, Color Hue, Strength of Copy, Precautions and Calculations. Accompanying the latter discussion is an Ink Coverage Chart which can be used for estimating requirements for offset-lith.


foresight...
Long before war curtailments of certain essential materials became a challenge to the ink industry, Huber chemists were anticipating . . . and solving . . . many of the problems of substitution.
As a result, Huber is maintaining . . . right now . . . inks and service of virtually pre-war standard.
In these days when reliability counts, learn to rely on Huber.
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IN USE SINCE 1780
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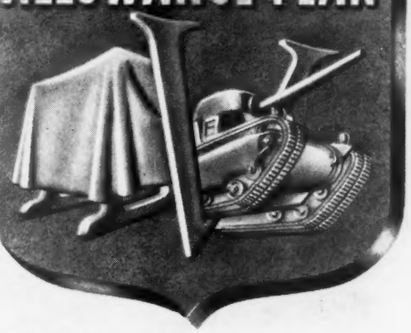
Your obsolete printing machinery can be part of the thousands of tons of vitally needed scrap metals, scrapped through the . . .

miller

WARTIME SCRAP ALLOWANCE PLAN



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MILLER PRINTING MACHINERY CO.
PITTSBURGH, PA.

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HI-SPEED QUOINS
STANDARD QUOINS AND KEYS
SEMI-STEEL IMPOSING SURFACES
SEMI-STEEL IMPOSING TABLES
PROOF PRESSES
LABOR-SAVING IRON FURNITURE
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PLATE-MOUNTING EQUIPMENT
STEREO BASES

● You can work a lot faster and do a better job on make-up, lock-up, and proofing when you use Challenge equipment.

It will help to cut costs by reducing waste motion, providing short-cuts, and in promoting general efficiency.

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How to select the best ROUTING CUTTER

All Royle Routing Cutters reflect advantages gained through more than eighty years in making these tools. Royle offers a complete line of cutters, of sound design, fine materials, and expert workmanship. *Order direct or through your dealer . . Be sure it's a Royle.* Write for catalog 440.

Choose Style According to Use

Styles	*Blade Sections*	*Recommended for*
A		Electrotypes, stereotypes, wood
B		Zinc
C		Brass
D		Electrotypes and copper
E		Copper (Steel at reduced speed)
F		Zinc (Reinforced blade)
G		Brass (Reinforced blade)
H		Copper (Ground below center)
L		Zinc (Long blade)
M		Wood veining (No taper)

JOHN ROYLE & SONS 8 Essex Street, Paterson, N. J.

BOOKS
RECEIVED

How Many Lines Will It Make?

WE are in receipt of a booklet entitled *How Many Lines Will It Make?* from Composing Room Superintendent Fred Brooks of the Dayton (O.) *Daily News*. The booklet (16 pages and cover) contains two-line specimens of the type faces used in the *News* composing room—the first set in each capital of the alphabet and immediately underneath a line set in lower case and containing each letter of the alphabet. In addition, one-line specimens of each type family are shown in groups.

The striking feature of the booklet, however, consists of simplified instructions for fitting copy. An explanation is made of the means for determining how many characters of each type face will go in any one of a number of pica measures. A specimen of typewritten copy is marked to show how to secure character count and the process to use for arriving at the number of lines of a given point size of type which can be secured. Upon another page is shown a specimen of advertiser's copy marked up with symbols all ready for the ad alley compositor and operator to proceed with composition. A carefully worded page explains how the symbol system is used for marking copy.

Taken altogether, the instructions for computing and marking advertising copy are excellent and certainly should satisfy the demands of a substantial strata of executives in the industry that an engineering approach should be used in printing plant production at all times.

ADJUSTMENTS

Continued from Page 19

type size is used and the clearance from the assembler chute rails is that of a capital W of the given size of matrices.

Intertype Assembler Chute

The 20 deg. angle should be maintained on the Intertype chute finger and the height of the chute should be the exact distance of a matrix when placed on a horizontal prong of the starwheel and assembler slide finger. Keep the spring on the chute quite strong, as the construction of the Intertype assembler is such that the matrix delivery belt controls the matrix travel through the chute. On Intertype Mixer Models it may be necessary to decrease the angle of the chute to allow the heel of the chute to contact matrices longer, but retain the adjustment of the prongs in relation to the star wheel. The tips of the chute finger prongs should just clear the assembler pawls when the elevator is raised.

Sennett Assembler

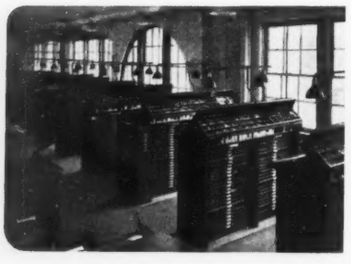
The Sennett Assembler requires no special adjustment. It is particularly beneficial on old model machines using old style assembler chutes where a wide range of type sizes is used, as it does away with manually raising and lowering the chute.

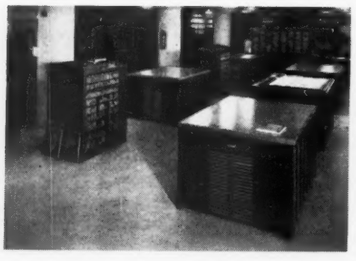
Assembling Elevator

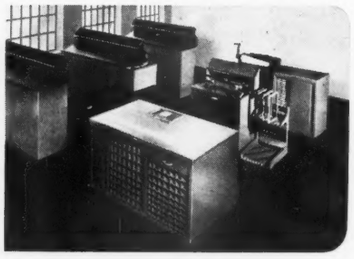
Gate clearance should be checked occasionally to prevent excessive wear on matrices and upon the gate itself. Particular attention must be given Linotype quadder assemblers to prevent an excessive bind from the springs on the gate and assembler back rail that support the matrices. If there is a bind or drag on the matrices from these springs it will retard the assembler slide with a consequent piling-up of matrices. When rail matrix buffers in front and back plates are pitted, they should be replaced, carefully fitting them flush with the assembler castings. Assembler pawls should have an even tension, sufficient to retain mats inside the pawls on a

LABOR SHORTAGE AND PROFIT SHORTAGE

Until the war is over, the composing room, like every other workshop, will suffer more and more from lack of sufficient and well qualified labor. It is going to be more and more important to safeguard the productive capacity of each compositor. Time that is wasted is gone forever.



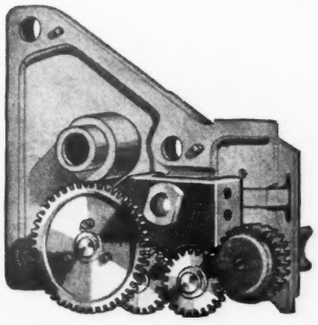




With compositors who may be unfamiliar with your shop, everything must be in its place, which means it must have a place. Adequate storage facilities for materials, galley cabinet for work in progress and standing forms, imposing tables with lock-up materials where they can be found, all these things take on added importance when you bring in new men. Help them produce by giving them the things to work with. Hamilton equipment may help you do it. Ask your dealer today.

Hamilton MANUFACTURING COMPANY, TWO RIVERS, WISCONSIN

ONE ANSWER TO *Efficient Assembling*



SLOW
OR
INTERMEDIATE
SPEED
(Specify your choice)
$13.75

COOK SLOW SPEED ASSEMBLER

Many grateful users have commented on the difference this attachment has made in assembling. It is seldom that a trial of one hasn't brought re-orders to take care of *all* the old Linotype machines that individual customers have.

It is applicable to the castings of Linotype and Intertype machines that are now equipped with the old style fast assemblies. It is available in the *slow* or *intermediate* speed. It is convertible from one speed to the other by substitution of two gears.

The entire unit is oiled thru a tube which is reached from the outside.

Modernize your old Linotype while you can.

***ACE BELTS*— WE ARE GLAD THAT OUR CUSTOMERS WILL NOT HAVE TO SUBSTITUTE FOR THESE BETTER BELTS.**

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A FRIENDLY WORD OF WARNING

While we are not alarmists in any sense of the word, yet we feel we would be remiss in our duty to the Printing Industry if we did not warn you to watch your type metal supply. In fact there has never been a time when printers and publishers have had to check their type metal supply as closely as right now. No one can see far enough in the future to tell what will happen to our supplies of type metal ingredients. There is no way to "hedge" on type metal, but there is one thing you can do, and that is play safe by watching your metal supply daily. Take advantage of the Imperial Plus Plan and regular metal analysis. The Imperial Plus Plan is constantly on guard over your metal. This is no time for experimenting or taking chances. Place your confidence in Imperial and you can be sure that Imperial will give the utmost in service for the duration.

Serving the Printing Industry Only

IMPERIAL TYPE METAL CO.

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Imperial

"snug" line. Excessive wear will result if pawls are uneven.

Spaceband Buffer Finger

A common source of trouble arises because of wear in spaceband buffers. The buffer should be replaced when it becomes pitted. The buffer should be slightly higher on the left side than the right to give best results, as a constant contact with the bottom of the spacebands is desired. This contact will prevent swinging of the bands in assembling.

Spaceband Chute

One of the most annoying transpositions is caused by spacebands "cutting off" the last letter of the word, such as "bo y." In other words, the spaceband reaches the assembler ahead of the last matrix of the word. This is usually caused by the spaceband not following the spaceband chute and dropping too far to the left. Correct this as follows: There are two "tongues" in a spaceband chute. Bend the top tongue (located even with the delivery slide short finger) to the right until a spaceband sticks in the chute, then move it slightly to the left until spacebands drop freely. This causes all spacebands to drop at a given point in the assembling elevator. The bottom "tongue" in the chute determines how far to the left a spaceband should drop. The proper setting for the bottom tongue is about 2 points to the left of direct vertical. Another common error in maintaining assembler adjustments is the use of a paper clip instead of a pin of proper size in the end of the spaceband reed. Wear or play at this point will also cause transpositions of spacebands because of the construction of the spaceband release.

Starwheel Friction

Before proceeding with assembler adjustments, always adjust the starwheel spring tension *first*. It is a fixed adjustment and is the primary adjustment for the smooth assembling of matrices. All other assembler adjustments are incidental to it. The tension of the starwheel friction spring should be just strong enough to assemble the largest size matrices without piling up in the assembler chute. Patience is required to secure this spring adjustment on old style machines, as it is necessary to file or set the spring to secure the desired tension. Newer style machines have adjustable starwheel tensions. The friction plate should be lubricated with vaseline or graphite grease. With proper tension, it is quite easy to stop the starwheel with a finger. A starwheel spring that is adjusted with too strong tension will result in rough, jumpy assembly of matrices.

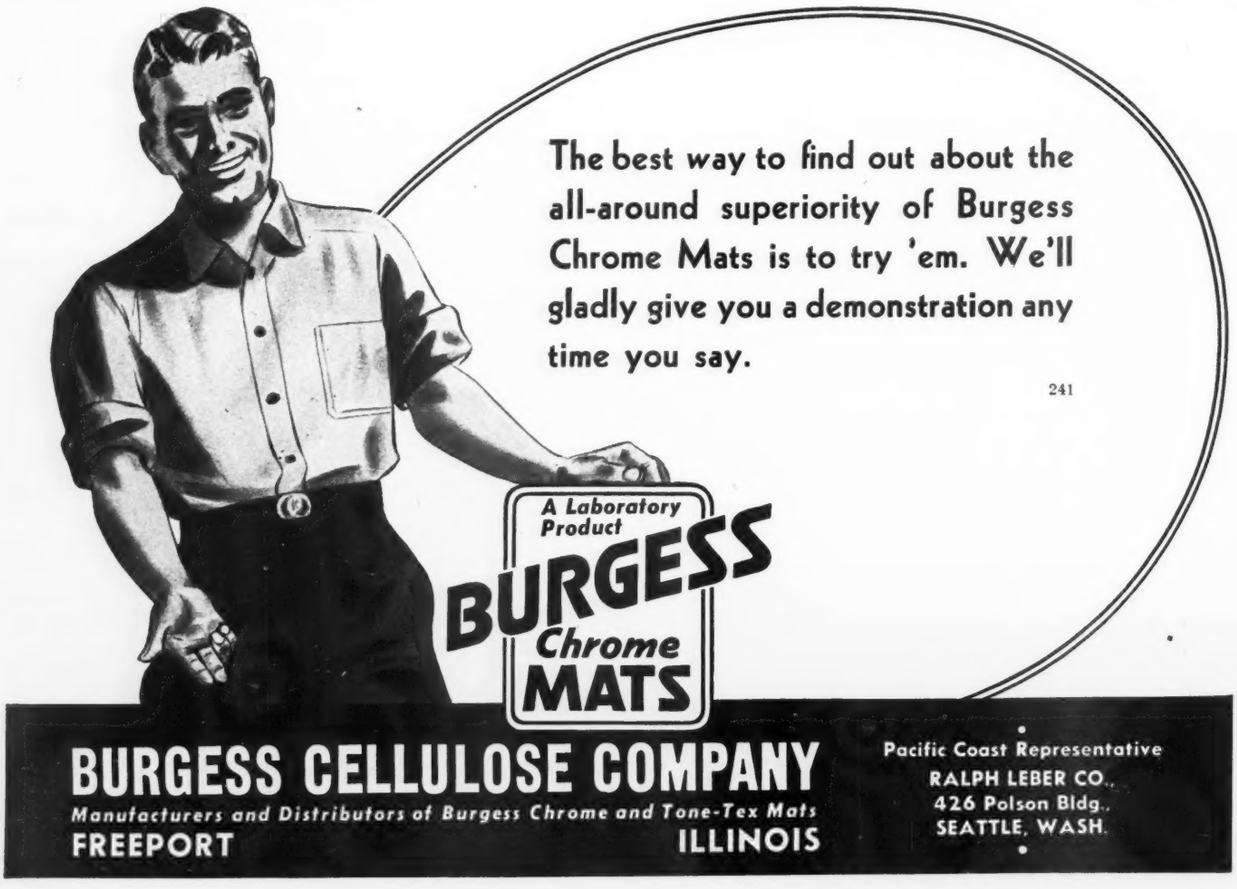
A noticeable improvement is obtained by filing the left side of Linotype starwheel—when in position in the machine—to reduce the face width of the spoke by about half. This reduces the possibility of matrices and spacebands falling directly on the starwheel and being thrown out of the assembling elevator.

Assembler Slide Friction

The assembler slide friction is adjusted in direct proportion to starwheel friction—*i.e.*, the stronger the starwheel friction, the stronger the assembler slide friction. A loose assembler slide friction is noticeable when the starwheel pushes matrices into the assembling elevator further than the required width of the matrix body, or by a "jumpy" assembler slide. A tight friction gives the same effect as a loose starwheel friction. A favorite abuse in assembler slide adjustment is to tighten the new style assembler slide return spring, or the Waters return spring, to secure an increased friction. These springs are to return the assembler slide only. Assembler slide friction is adjusted by changing the tension of the coil spring which operates the assembler slide brake block lever. Adjust this spring so the assembly of matrices is smooth and there is no jump or "overthrow" of matrices. Fiber brake blocks are satisfactory, and reduce wear on the assembler slide. The assembler slide return mechanism should be adjusted to allow 4 points clearance between the return lever and brake block lever.

Assembler Slide Setting

Adjust the assembler slide line length so a line of matrices with one spaceband, set tight enough to just allow the starwheel to chatter, will justify the spaceband even with the top of the first elevator jaw. With this adjustment, it is im-


The best way to find out about the all-around superiority of Burgess Chrome Mats is to try 'em. We'll gladly give you a demonstration any time you say.
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Pacific Coast Representative
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The Kid tells Pop about numbering for profit

- "Hi-Pop—how many kinds of numbering jobs can you think of?"

★ "Probably forty or fifty."

- "I can read you eighty-three."

★ "Where did you get that list?"

- "In a book called 'Numbering for Profit'."

★ "Where'd you get it?"

- "Where'd you think? Wetter, of course."

★ "A good guide to sales opportunities for printers."

- "You bet. We ought to tell the boss and help him get some more business."

★ "And we can do it well."

- "Why?"

★ "Because all our numbering machines are Wetters."

- "Which means what?"

★ "We number better with a Wetter."

- "And make money to buy more War Bonds."

WETTER NUMBERING MACHINE CO.
ATLANTIC AVE. & LOGAN ST., BROOKLYN, N. Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

3034

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Conservation

is now the important thing to mechanical and production executives. Conservation means the saving of production time wherever possible as well as of materials needed for winning the war.

We commend to you **Booth's Zink Cut Cement** as a small but mighty important article for conservation of production time. By means of this cement, all kinds of cuts may be fastened to wood or metal base in minimum time. Cuts do not become lost nor do they twist out of position on the base if the simple mounting instructions are followed.

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We would like to send you a trial pair of **Booth's Black Rubber Rolls** if you are not now using them. Resilient and concentric from end to end. Made specifically from carefully compounded materials for turning over the cams in line-composing machine keyboards. $1.45 per pair; by the dozen, $7.75, including excise tax.

Please place the A-10 Rating Under Preference Rating Order P-100 for Repair, Maintenance and Operating Supplies on your purchase orders for our products.

THE E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

possible to bend a spaceband, so long as a line is sent in with the starwheel turning.

Speed of Machine

Assembling trouble, as well as distributor trouble, has often resulted from changing the speed of the machine. When a larger motor pinion gear is used, it not only increases the casting speed, but also increases the keyboard roller, assembler, casting and distributor speeds in proportion. When a machine is speeded up, it is necessary to increase the size of the intermediate shaft pulley to maintain certain limitations. To illustrate, we shall consider the speed of the matrix delivery belt. This belt travels faster than the speed of a falling matrix, so an em dash and a lower case "e", if released simultaneously, would reach the starwheel at precisely the same theoretical time. The belt increases the delivery speed of the matrix to compensate for the greater distance traveled. Therefore, when this speed is altered, the entire synchronization of the assembly mechanism is affected. This applies to keyboard rolls, etc. Incidentally, keyboard rolls should not rotate faster than 280 r.p.m. for best results. Consult your machine company before changing pinion gear sizes if maximum efficiency is desired.

The writer will welcome communications concerning any specific problem of matrix assembling. State make, model and serial number of the machine, type of assembler chute and enclose 3c stamp for reply.

Conservation Order M-99

Continued from Page 2

14. I have a quantity of original half-tone photo-engravings to dispose of. Who shall I sell them to?
If your local electrotyper is authorized to receive them, he would be a logical purchaser of such photo-engravings.

15. I have a large number of zinc photo-engravings to dispose of. To whom should I sell them?
To any person regularly engaged in buying and selling scrap or in smelting or refining.

16. Do such things as envelope stuffers, folders and pamphlets come under the definition of "book printing" or under "all other categories of printing"?
"All other categories of printing."

17. I am an engraver of visiting cards, wedding announcements, Christmas greeting cards, etc. I have many thousand customers who own the plates which I am holding for them. Is it necessary that I notify all of these customers?
Yes.

18. If I run an advertisement in a local newspaper, will that be considered as a satisfactory notice?
No. It is suggested, however, that you run such an advertisement and all of your customers who reply as result of it need not be otherwise notified. However, all those who do not reply must be specifically notified.

19. May I hold obsolete zinc photo-engravings in order to turn them in at some future time in exchange for new photo-engraver's zinc?
No. Zinc photo-engravings must be disposed of as required for all other obsolete plates by Order M-99.

20. I am the publisher of a magazine and have disposed of all of the plates which have not been printed from a year prior to July 1, 1942. Am I in complete compliance with Order M-99 and can I forget it?
You are in compliance at the moment, but you cannot forget the Order since it states that on the first of each calendar quarter beginning with October 1, 1942, plates which at that time have not been printed from for one year are obsolete and if held beyond that time prevent the owner from acquiring any new plates or any new metal.

21. I am the custodian of obsolete plates which belong to a person now living in an Axis or Axis-controlled country. To whom should I send the notice required by Order M-99?
To the Alien Property Custodian.

22. I am an engraver and have been asked by my customers to purchase from them their obsolete plates. May I do so?
Only recognized scrap metal dealers or authorized smelters or refiners may receive obsolete plates. As an engraver, you are not likely to be one of these. However, as a convenience to your customers, you may act as their agent in disposing of their obsolete plates to authorized sources and after such disposition, credit their accounts accordingly.

23. I am an electrotyper and wish to buy obsolete plates from my customers. May I do so?
Only if you have been authorized by the War Production Board to receive and process scrap copper.

24. I am a magazine publisher. After I have notified the owners of the cuts which I am holding for them, as custodian, do I have any further responsibilities under Order M-99?
Yes. If these owners do not dispose of their obsolete plates, you may not supply them with any new plates or use in the printing of your magazine any new plates which they supply to you. (See also answer to Question No. 13.)

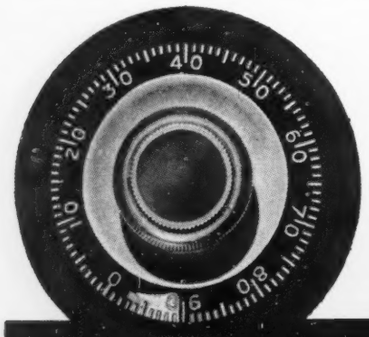
25. In our business, we have in the past supplied plates to clients who do not live in the United States. Are they affected by the terms of Order M-99?
No. (Unless such plates are now located in the United States.)

26. The scrap metal dealers in my vicinity either refuse to accept electrotypes or offer me only a very low price for them. What shall I do to comply with Order M-99?
Offer your electrotypes to the nearest Branch of the National Lead Company, the Essex Metal Alloy Company, Newark, New Jersey, or Metro Smelting, Philadelphia, Pennsylvania. Any of these companies will pay you 1¼ cents per pound under the current New York price of common grade lead, f.o.b. their plant for the electrotypes you wish to dispose of.

27. Are stereotypes and standing type affected by Order M-99?
Only nickel plated stereotypes are affected by the Order at present. Plain stereotypes and standing type are not affected.

28. I am a book publisher and on my list are certain English authors who have an option to buy the plates of their books. I have communicated with these authors as provided for in M-99, but as yet have not heard from them. May I have an extension of time in which to report to the War Production Board?
No. Report on or before the time specified in the Order.

(*Continued on Page 44*)



THE RIGHT COMBINATION

Cushion Cork & TINGUCORK

PAT. 2,207,999 IN COMB. WITH TINGUCORK

PAT. 2,207,999 IN COMB. WITH CUSHION CORK

Patent No. 2,207,999 Combination now makes it possible for pressroom operators to secure Superior Cork Packing in a wide range of gauges with the combined advantages of Tingucork's density and Cushion Cork's resiliency to compensate for plate irregularities and mechanical conditions.

"CUSHION CORK"— Called the safety blanket because its high resiliency allows it to accept extreme compressive stresses, such as web breaks, and still immediately recover its original size or gauge.

"TINGUCORK" — Of greater density than Cushion Cork; *must always* be used as a companion blanket with Cushion Cork where a Drawsheet provides the printing surface.

TINGUE BROWN AND COMPANY

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CANADIAN SALES AGENTS:
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Use this ingenious means of scrapping old printing machinery in the nation's interest . . .

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WARTIME SCRAP ALLOWANCE PLAN

FOR FULL DETAILS, WRITE
MILLER PRINTING MACHINERY CO.
PITTSBURGH, PA.

"We don't have to wait this long for a WOOD MAT *to dry."*

WOOD DRY MATS
ALWAYS UNIFORM

WOOD FLONG CORPORATION
HOOSICK FALLS, NEW YORK
551 Fifth Avenue New York City

Customs Change! No longer do we see help wanted signs on buildings but the need for skilled workers still exists. The printing industry is seeking men and women with a sound and practical training.

PRACTICAL TRAINING IN Publishing and Printing

At this superbly-equipped school the student achieves a sound training by practical instruction combined with related subjects which prepare him or her for success in the printing industry.

Investigate—For detailed information, write to the DEPARTMENT OF PUBLISHING AND PRINTING.

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If you've never tried it

SEND FOR SAMPLE

"FLECTO" Gummed Backing Felt

Porosity permits quick escape of steam—glue coat prevents slipping or leaving matrix under heat. Adhesive does not crack, peel, or crystallize. Gauges .021, .025, .030, and .035 in sheets 18"x 24" also gauges .040, .045, .050, and .060 in sheets 18"x 22"—no charge for strip cutting.

"TRUE-MOLD" CORK MOLDING BLANKETS

Sets match in weight and density, give better molding. Uniform density throughout gives "TRUE-MOLDING" over entire form surface. We furnish hard and extra-hard (special) blankets.

EASTERN NEWSPAPER SUPPLY
9603 Northern Boulevard Corona, New York

DON'T WASTE MAN POWER

When efficient man power is scarce, productive machinery becomes more and more valuable.

The C&G No. 3-A Saw Trimmer facilitates maximum output from every minute of work. It is designed to make sawing an exact operation, without loss of time in setting gauges. It is easy, safe, accurate, and fast in operation. You can get the C&G No. 3-A Saw Trimmer for replacement or to increase efficiency. Write for circular.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE, WISCONSIN

Recent Linotype Installations

Eight Linotypes—six Blue Streak Master Model 31s and two Mixer Model 29s—have been installed by the Baltimore (Md.) *Sun*. One or more Linotypes have been installed by the Greek Archdiocese Institute, Pomfret Center, Conn.; Russky Golos Publishing Company, New York, N. Y.; Haskell Institute, Lawrence, Kan.; *Hampshire Review*, Romney, W. Va.; Gurley Press, Suffolk, Va.; D. H. Ahrend Company, Inc., New York, N. Y.; Pious Society of St. Paul, Inc., Port Richmond, N. Y.; Union College Press, Lincoln, Neb.

50 Years of Service

Leopold (Dick) Meyer of the West Bend (Wis.) *News*, recently completed 50 years of service with that paper. To observe the event, Mrs. Joseph J. Huber, publisher of the *News*, gave a dinner to employees and their families on August 27. At the speakers' table, six persons were seated, representing 200 years of service with the *News*. Several gifts, among them a watch and chain, were presented to Mr. Meyer.

Two New Trojan Products

Trojan Products & Mfg. Co. has announced two new products which are said to have considerable utility about the printing plant. The first of these is called Trojan Elektro-Purjit Cleaning Compound and the second is called Trojan Quik-Sil Oil Absorbent Compound.

Trojan Elektro-Purjit Cleaning Compound is a fused chemical used for cleaning purposes about the plant. Some of its uses are: Cleaning machinery, cleans paint without rubbing, restores skylights and windows to original clearness, makes greasy and oily cement and wood floors look like new, disinfects surfaces, dissipates urinal sink and toilet film and odors, lighting fixtures may be cleaned with it for better light reflection, and also restores natural brightness to linoleums, mastic cement and terrazzo surfaces.

Trojan Quik-Sil Oil Absorbent Compound is used in place of wood shavings, sawdust, sand and floor sweeping compounds. It can be re-used. It reduces the slip hazard on cement, wood and steel surfaces. Soaks up oil on floor surfaces. Is harmless to shoes and is odorless and dustless. Manufacturer states Quik-Sil will not burn when oil-soaked.

When OLD FACES REAPPEAR

a VITAL QUESTION *comes up*

● Young men vanishing from stereo crews has brought many veterans out of retirement, eager to be of use while manpower is needed . . . "Still using Certifieds," is the answer to their inevitable question . . . an answer which means that aging nerves and muscles will not be unduly strained in getting back into harness.

Certified field men are always available for consultation on mat questions.

CERTIFIED DRY MAT CORPORATION
9 Rockefeller Plaza · Dept. M · New York, N. Y.

Certified DRY MATS

SAFETY·RELIABILITY·ECONOMY
CLINE
PRESS DRIVES and CONTROL Reels, Tensions and Pasters . . .
CLINE SYSTEM
CLINE ELEC. MFG. CO.
Chicago: 211 West Wacker Drive
New York: 220 East 42nd Street
San Francisco: 1st Nat'l Bank Bldg.

INVESTIGATE
Cushman Flat and Curved Plate Routers *and* Cushman Offset motors for Line-casting machines
CUSHMAN ELECTRIC COMPANY, 69 So. Main St., Concord, N. H.

Consult P-Double-E Index

Safety PLUS Efficiency

with **JUSTRITE** *Safety* **CANS**

Here's the safe, sensible way to store and handle benzine and other 'flammable liquids. Trigger handle keeps spout closed except when pouring . . . stops leakage and evaporation. Built to last for years. Body of heavy lead-coated steel, double seamed and soldered. Red baked enamel finish. Made in 7 sizes from 1 pint to 5 gallons.

Approved by Underwriters' Laboratories, Inc.

Ask your supplier or write for catalog and prices

JUSTRITE MANUFACTURING CO.
2061 N. SOUTHPORT AVE. CHICAGO, ILL.

A. P. S. GUMMED PACKING
CORK BLANKETS
CREEPERS
POURING SHEETS
TAILBOARDS

and other Stereotype Supplies Always Best

AT

AMERICAN PUBLISHERS SUPPLY
17 Stewart Street Lynn, Mass.

The nation, the printing industry and the printer, all benefit under the . . .

miller

WARTIME SCRAP ALLOWANCE PLAN

FOR FULL DETAILS, WRITE
MILLER PRINTING MACHINERY CO.
PITTSBURGH, PA.

RICHARDS Saws SINCE 1910

"MULTIFORM"
"ELECTROMATIC"
"DOMORE" "CLIPPER"
SAWS — ROUTERS — DIES
J. A. RICHARDS CO., Kalamazoo. Mich.

DUPLEX PRESSES

Semi-Cylindrical • Unitubular
Tubular • High Speed Flat Bed
Flat Bed • Stereo Machinery

The Duplex Printing Press Co.
Battle Creek, Mich.

Stop Offset Trouble!

Send today for our new bulletin, "10 Ways to Avoid Offset." 14 pages of valuable hints for the pressman — how to improve presswork save money — by stopping Offset trouble.

E. J. KELLY CO.
1807 N. Pitcher St. Kalamazoo, Mich.

$325 - GET THE FACTS!
ON THE
NEW *Rouse* BAND SAW
H. B. ROUSE & COMPANY
2216 N. WAYNE AVE., CHICAGO, ILL.

100% ***AUTOMATIC SLUG SAWING***

Odd-measure slugs sawed to any measure as ejected from line-casting machine. Fast — accurate — economical. Write for folder and prices.

MOHR LINO-SAW CO.
128 N. Union St. Chicago

MOHR SAW

★ ★ ★ ***Use Ideal Plate Gums*** ★ ★ ★

Adaptable for plates used on high-speed printing of cardboard, cloth, wood and rough papers. Made both from rubber and synthetic compounds to meet exacting requirements. Special formulas for aniline and linseed base inks.

Ideal gums are noted for their high tensile strength. Mold easily and are abrasive-resistant. Save makeready time. Use Ideal plate gums for your plates and be assured of brilliant colors and uniform smooth coverage on flat tints.

IDEAL ROLLER & MANUFACTURING COMPANY CHICAGO, ILLINOIS LONG ISLAND CITY, N.Y.

Conservation Order M-99

Continued from Page 40

29. I am an engraver and my customers are buying cuts from me on a daily basis, without the formality of a purchase order. Is it necessary that they certify in the case of each cut bought that they are in compliance with Order M-99?

If, on the first day of each calendar quarter, your customers give you a blanket purchase order to cover the requirements for the following three months and if on this purchase order they give the certification required by Order M-99, that will be sufficient.

30. We are printers and have in our possession a number of cuts which we are unable to identify. May we have authorization from the War Production Board to scrap these cuts so as to relieve us of any future obligation?

No, you should report the cuts in question to the War Production Board so that they can be requisitioned in appropriate cases.

31. What is meant by container printing?

By container printing is meant printing on the container itself, be it a metal tube, a tin can or a paper or wood box or fabric package.

32. Is the printing of labels considered container printing when the label is attached to container?

No. The printing of labels comes under "all other printing categories".

33. What is meant by book printing?

Book printing is the printing of books published by established publishing houses and normally offered to the public for sale.

34. Is a case bound catalog of a machinery manufacturing company considered book printing?

No. Such a catalog falls under "all other categories of printing".

35. Is the printing of school and college yearbooks, annual reports, camp catalogs, etc., considered book printing?

No. Such printing falls under "all other categories of printing".

36. Are steel dies covered by Order M-99, even though they are not made of "restricted metals"?

Yes. Despite the fact that they are not composed of "restricted metal", they comply with the definition of a plate as given by Order M-99 and are therefore covered by the Order.

37. We are retailers and own various printing plates which have not been used for 2½ years. Is it necessary that we dispose of such plates?

Yes. If, after October 1, 1942, you are going to acquire any new plates or instruct your printer to purchase for you any new plates, you must first dispose of all "obsolete plates".

38. We are lithographers and have on hand a large number of lithographic plates which have not been printed from for 2½ years. Must we scrap these to be in compliance with Order M-99?

You must either scrap them or re-grain them. By the definitions of Order M-99 the re-graining of a lithographic plate is considered a use.

39. We have quite a few printing plates which we have used in our national advertising programs in music trade magazines. Are we correct in assuming that Order M-99 allows 2½ years of no usage of these plates before they are declared obsolete?

No. Since these plates are used in magazine printing, they are obsolete when they have not been used for the period of one year.

40. What is meant by the phrase "an assured future use" as contained in Subparagraph (a)(5) of the Order.

The reasonable possibility that a plate will be reprinted from is not considered an assured future use. There is an assured future use only if there is a definite expectation that the plate actually will be reprinted from.

41. I am a law book publisher and own the plates of certain titles which have not been reprinted within the last four years, and yet they definitely will be reprinted at some time in the future. Can these plates be said to have an "assured future use"?

Yes.

42. I am a music publisher and realize that certain plates in certain titles are obsolete whereas other plates in the same titles have an assured future use. Must I separate the plates within a title and scrap those which will not be reprinted when that title is next reprinted, in order to comply with Order M-99?

Yes.

43. I am a commercial printer and I own many zinc and copper decorative cuts used in the printing of programs, menus, advertising folders, and the like. Can these be said to have an "assured future use"?

Cuts of decorative materials, borders, etc. of an obsolete design certainly have no assured future use. The same is true of cuts which are worn or damaged. Material of this kind used currently can be considered to have an assured future use.

44. We are the publishers of a college magazine and in our files are cuts of campus scenes, alumni, etc. which will probably be used in the future. Can these cuts be said to have "an assured future use"?

Cuts in the morgues of newspapers and magazines and other publications illustrating subjects still in the public eye may be said to have an assured future use. Cuts in such morgues illustrating subjects which have passed out of interest, usually do not have an assured future use.

45. We are an advertiser and are holding electros or originals of complete ad plates of current usable ads. From time to time calls come in for these and it is probable that they may be usable in the future. May these electros or originals be held?

No. Electros or originals of complete ad plates which have been unprinted for one year stand a poor chance of being used again. Such plates therefore cannot be considered as having assured future use.

46. We are Bible publishers and many of our Bibles are normally reprinted at intervals of 5, 10 or even 15 years. Must we dispose of the plates for these?

Not necessarily. The plates of standard books not subject to revision and normally reprinted at long intervals, are considered to have an assured use.

47. Can the plate of a visiting card be said to have an assured future use?

Only if the owner of the plate has not changed his or her name, address, or other matter appearing on the plate.

48. Can the plate for a wedding announcement, at home card, etc. be considered to have an assured future use?

No. Sentimental value of a plate is not considered an assured future use.

49. We are a university press and publish books of a scholarly nature. We have held cuts from books now out of print which illustrate significant subjects because we have found from experience that such cuts can often be used again in new titles. Does Order M-99 make it necessary for us to destroy these cuts?

Yes, unless they have an "assured future use". In this instance an assured future use means titles under contract or in preparation in which the cuts are definitely to be used. Holding them on the basis that at some time in the future titles will come along which might use some of them cannot be considered an assured future use.

50. We are a security banknote company and print stock certificates for our customers. Except in fast moving issues, such certificates are normally reprinted at long intervals. May the cuts from which they are printed be said to have an assured future use?

Yes, provided the companies are still in existence, have not changed their names or the type of stock certificate which they issue. No blanket assumption should be made that all such cuts have an assured future use. Files of such cuts should be carefully scrutinized to eliminate those which for one reason or another have become obsolete.

51. We operate a chain of restaurants and own electrotypes of a continuing newspaper advertising campaign. Certain of these electros will be used again, but it is impossible to predict which of those will be. May all of these electros be assumed to have an assured future use?

No.

52. Do cuts which are used repeatedly in magazine advertising have an assured future use?

Yes, provided they illustrate items which are current. All files of such cuts should be reviewed to eliminate those which illustrate non-current and obsolete items.

Advertisers' Index for October

American Publishers Supply....43
Atlantic Zinc Works.....31
Booth, The E. A. Rubber Company.....39
Burgess Cellulose Company.....38
Certified Dry Mat Corporation..42
Challenge Machinery Company, The.....35
Champion Paper and Fibre Company, The.....4
Cline Electric Manufacturing Company.....42
Cushman Electric Company.....42
Duplex Printing Press Company.43
Eagle Printing Ink Company....2
Eastern Newspaper Supply.....41
Edes Manufacturing Company..32
Goss Printing Press Company, The.....6
Hamilton Manufacturing Company.....36
Hammond Machinery Builders..33
Harris-Seybold-Potter.....Inside Front Cover
Huber, J. M., Inc.....34
Ideal Roller & Manufacturing Company.....43
Imperial Type Metal Company.37
Intertype Corporation.Outside Back Cover
Justrite Manufacturing Company.....43
Kelly, E. J. and Company.....43
Lanston Monotype Machine Company.....7
Linotype Parts Company.....37
Ludlow Typograph Company....3
Matrix Contrast Corporation....8
Mergenthaler Linotype 27
Miller Printing Machinery Company..Opposite Inside Frt. Cover 2, 35, 41 and 43
Milwaukee Saw Trimmer Corporation.....42
Mohr Lino-Saw Company.....43
Richards, J. A. Company.....43
Rochester Institute.....41
Rouse, H. B. & Company.....43
Royle, John & Sons.....35
SKF Industries, Inc.....1
Tingue Brown & Company.....40
Vandercook & Sons, Inc.....30
Vulcan Proofing Company.....Inside Back Cover
Wetter Numbering Machine Company.....39
Wood Flong Corporation.....41
Wood Newspaper Machinery Corporation.....29

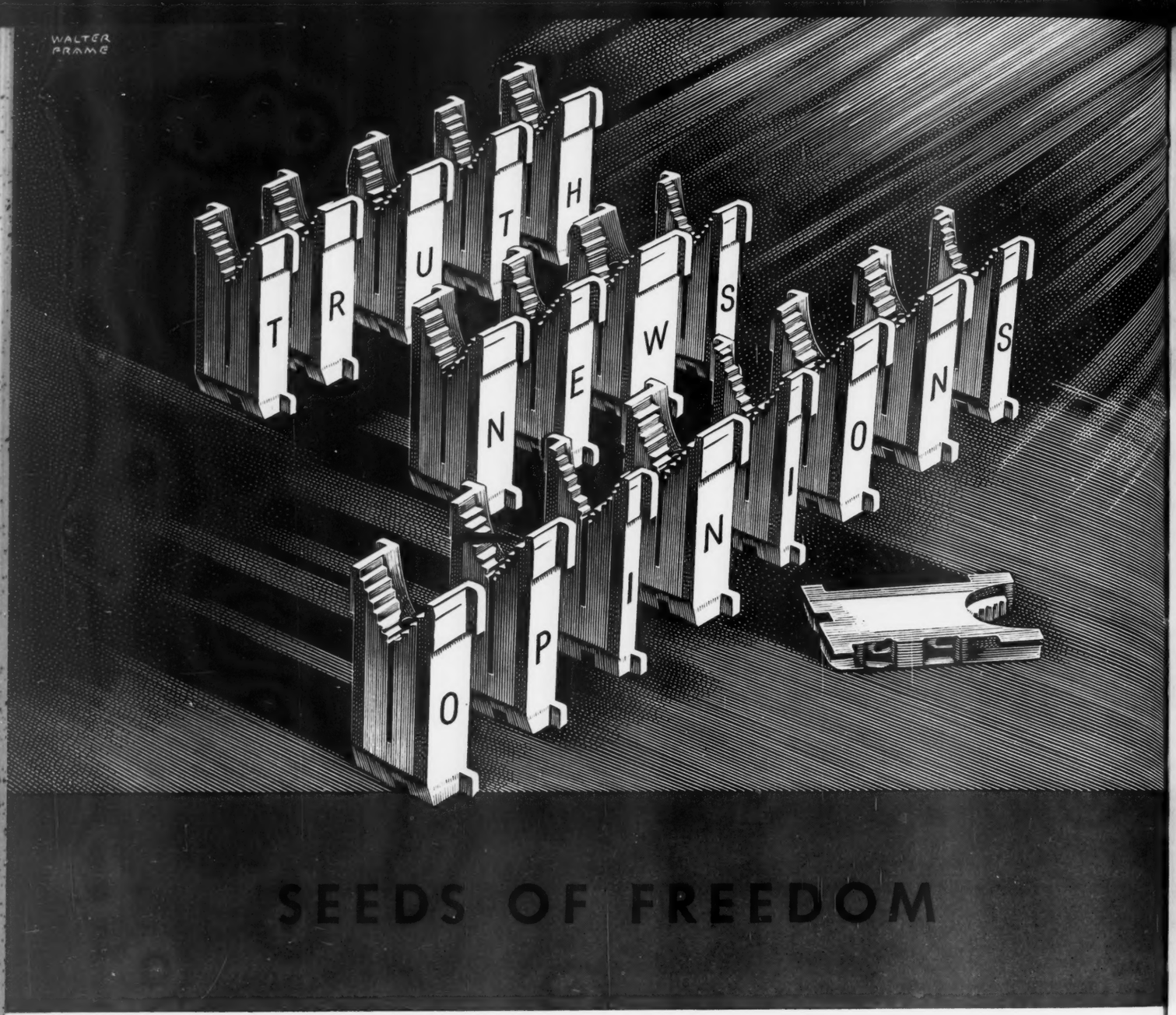
Conservation travels two important paths—the conservation of supplies by the printer and the conservation of your good-will by Vulcan Proofing Company in helping to solve your printing problems.

With the manufacture of press blankets and inking rollers partly restricted by the government, it is the aim of every printer to make his present equipment last as long as possible. If you will use your Vulcan Press Blankets and Inking Rollers as carefully as we make them, you will find that you can obtain remarkably long service from them. Vulcans do last longer.

War production work will not decrease our strict laboratory control of roller and blanket manufacture. We will always value your good-will and our aim to conserve it will be backed up by research and "trouble shooting." Contact Vulcan at any time. Anticipate your needs. They will be taken care of. Order as early in advance as possible.

VULCAN PROOFING CO., First Ave. and 58th St.
Brooklyn, N. Y.
Sales Representatives in Principal Cities

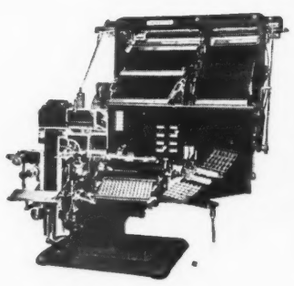
VULCAN
PRESS BLANKETS AND INKING ROLLERS
By actual test mean better press work and less trouble



SEEDS OF FREEDOM

PRINTING has been, is, and will be the greatest single factor in promoting mankind's steady advance to all the freedoms.

Let others build the ingenious conveniences and appliances which are the physical expressions of man's improving lot. Yours is the high calling of building human knowledge and understanding, which make all of these possible. Only America's wise heritage of a press that is free to print truth, and honest expressions of opinion—whether some like them or not—insures understanding which can guide knowledge to victory against aggressors, and against the enemies of want, and of fear.



SOLDIERS OF FREEDOM

• It is Intertype's high privilege to aid in cutting the time and cost of getting words to presses. During the war we are cooperating to keep all Intertypes in perfect condition . . . and when peace comes will have important advances ready to render further and greater aid. Ask for a copy of "Your Intertype in Wartime." INTERTYPE, Brooklyn

SET IN FUTURA DEMIBOLD